The American Journal of
CLINICAL MEDICINE
Dependable Therapeutic Fact for Daily Use

Vol. 23. No. 7 JULY, 1916

The Value of A Code of Ethics

PERIODICALLY an eruption occurs in the medical societies, a tremendous fuss is kicked up, plenty of hard feeling engendered, and then the whitewashing committee gets in its work. Resolutions are passed that by their high-sounding phrasing and the unhumanly lofty principles enunciated, would have done credit to Thaddeus of Warsaw; and the accused member is acquitted, but with the admonition that he must not do it any more. The public-spirited or grouchy member who has formulated the charges gets himself universally disliked, and the reputation of being a "sorehead" clings to him for the rest of his days; he is a man who is best to be avoided.

Read over the venerable code of ethics, and one can not but say that there is not a thing in the rules to which any honest man can not subscribe; not a provision that any man ought not to follow uncompelled. But, here is just where the trouble arises—every human being resents instinctively the sense of obligation.

All good traits require cultivation—the weeds come naturally. The boy is primarily destructive and predatory—altruism is the ultimate degree of development, and not everybody reaches it. The primary instinct of every normal human being is, to be free; and under the consciousness of freedom the moral instincts develop naturally. Tell a man that he *must* do a certain thing, and he resents the compulsion; let him alone, and his sense of right will lead him to do right.

A man need not be Christian, Jew or Buddhist in order to realize the intrinsic truth of the divine maxims, "Do unto others as you would they should do unto you," "Love thy neighbor as thyself," "Be kind to all that lives," for, the innate consciousness of every man accepts them as true. Let any body who has transgressed these simple rules face a gathering of his fellows—the medical society—and be called to explain why he has acted unjustly or treacherously toward his colleague, and he must either confess and promise amendment or else face the disapproval and ostracism of the rest.

But, let these rules be cast into a code of law or ethics and make their observance obligatory, and at once the spirit of rebellion is aroused. No orchard so tempts the boy as that one which is guarded by a savage dog, for, the fruit so protected surely "must" be sweeter. Whenever a new law is framed to restrain commercial activity within due limits,

the wits of the legal fraternity are set to work to devise means of evading it.

Similarly, promulgate a code of medical ethics, and at once men try how close they may shave its limits without actually transgressing—or being found out. If they slop over, their fellows joke with or commiserate them rather than condemn. The member who prosecutes is condemned as one who has seized the chance of making trouble, having caught his neighbor at a disadvantage; and it is the stickler for discipline who alone suffers from the affair.

The best rule of ethics is that of simple right and wrong—the Golden Rule. He who carries this in his heart and invariably acts upon it has little need of written codes. Such a one is not a wolf whose actions must be regulated by law, whose preying upon his fellows must be restrained within such limits as protect the pack in general, but he is a God-fearing, Christian gentleman, or its full equivalent, who does what he feels to be right, not for fear of punishment or of detection, but because he has trained himself to do so as a matter of course, to keep his self-respect. He desires to say truthfully, when he comes to face Eternity, that he has never knowingly wronged any human being or neglected an opportunity of benefiting others; and, if he can do this, whatever his creed, he may fearlessly step off into Infinity, to meet a just God.

There was an ape in the days that were earlier,
Centuries passed, and his hair became curlier;
Centuries more gave a thumb to his wrist,
Then, he was Man—and a Positivist.

PROFESSION—BUSINESS—OR BOTH

Doctor, have you ever been in this man's situation? Just listen:

"Dear Editor: A short time ago, I saw in CLINICAL MEDICINE the statement that a young doctor should call in the old practitioner for counsel and advice. It cannot be done in my own case. This has been on my mind for some time, but I just kept choking it down. When one doctor stoops to tell lies on the other, that man is not worthy the title of 'junk peddler.'

"I came to my present location over a year ago. After getting acquainted with the prices and the people, I settled down. Work came slow at first, but as soon as it did begin my competitor began to get busy also, and in order to discredit my work passed the word around that 'only the bums' came to me.

"I reduced fracture of two ribs and charged $3.50 for this. Having occasion to be out of town when the patient desired the strips removed, he went to my competitor, who kindly told him I had charged too much and that he would have charged him only $1.50. Not satisfied with that, he informed my patient that I had not done the work right. I lost this patient, of course. I engaged to care for an obstetrical case for $10.00. Doctor spun another yarn and got the case at $15.00."

[Here follow several of the cases with which we are all familiar, where the older man made mistakes but managed to wriggle out.——ED.]

"This is the type of man whom I must meet and, yet, do business on a fair, honest basis. And then your editorial tells the young doctor that he should consult with the older one! I could never consider a man of the caliber of my senior for a good, honest opinion. If an honest opinion found entrance into his cranium, he would hardly know how to entertain such a stranger. You may think I am harsh, not so—I feel sorry for the man whose mind grovels so in the dust that he can see sheer nothing but the dollar. No man possessed of right ideals can stoop to such actions.

"I write these few lines because you are 'the man behind the gun' in an always most helpful magazine."

ANY YOUNG DOCTOR.

To this letter, one of the CLINIC's staff replied just as one who knows his big, kindly nature would expect he would. Nothing that I could say so well covers the situation, so, I shall repeat his words:

"Unfortunately, these cases are still to be found, and far too often, although I believe that physicians generally throughout the country are trying to be fair and considerate of one another. The situation you describe is certainly a very difficult one, and no one can blame you for feeling acutely concerning it. Nevertheless, the wisest course you can take undoubtedly is, to do your duty like a man, from day to day, keeping straight ahead and paying no attention to the criticisms and back-bitings of the other fellow. In the long run, chickens of that kind come home to roost, and it seems to me that they already are beginning to do so in your town. The fact that you have been upheld in your diagnoses by other physicians, and particularly by representatives of the state board of health, will get around to the people without your saying anything about it.

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"Do not be tempted by anything the other fellow may do to follow the same tactics. Courtesy, honesty, fair dealing, integrity, and industry in the long run are bound to win out, and I am confident that you will make good and that your position will be firmly established in the community in which you live.

"Thank you, doctor, for writing us thus freely and frankly. We are glad to know the problems of the men in the field. Knowledge of this kind brings us closer to our readers, and I believe, helps us to help them."

Leave aside the personal element and take this case as a type. We have heard one side—we may easily supply the other; and, as we are not discussing this as a solitary case, can assume the judicial, impartial attitude.

We have an old established practician, into whose territory there comes a product of the modern school, versed in much with which the older man is unfamiliar. Each has certain advantages. The older man has no more income than he needs; he resents its cutting down, and feels sore that the people who have had his best service all the years desert him for this youngster. I do not excuse or justify his treatment of the young man; however, just put yourself in his place, and—honestly, would you do better?

There is the gist of the matter. Begin by thinking as kindly as you can of the older man; sedulously refrain from word or hint of detraction, ignore everything you hear of his saying about you—maybe he never said it, and most surely it has grown since it left his lips—and, whenever you can, put in a kindly word for him. He is not human if he can stand out against such treatment; and if he could, the townspeople would ride him out on a rail. Say no word in your own defense, but show a kindly spirit; the rest will do the talking for you.

Professionally, you are being tried out against him—and the best work can not long fail of recognition. But you are more than a professional man: you are a man, a citizen, and are being tried out as such in the great struggle for existence. This is what the young man never realizes until he no longer is young. The fittest who survives is not necessarily the best doctor, but the best financier.

If this older man has made egregious errors and, yet, come out ahead, he has beaten you badly; and it is up to you—just you, and nobody else—to learn how to compete with him commercially. Not by cheapening—if you have charged too much, come down; if not, hold your prices and sturdily declare your services are worth what you ask; but don't add that his are probably worth what he asks. Leave that inference for the others to make. Do not lower your own standards because his are low. That acknowledges his superiority.

The thing is so simple and easy, if only you begin right, by thinking kindly of him. The rest comes as inevitably as age. But, you must realize that it is your own manhood, your fitness to wage the battle of life that is at stake, and not so much your ability as a doctor. You are a general who with superior forces and a better position have allowed the enemy to win his first battle against you. Never mind the old doctor—look to yourself; realize your failure in management and try to do better.

My brother, when he heard a man expressing his opinion of another in terms too vitriolic to pass the censor, was in the habit to remark quietly, "He speaks mighty well of you." Invariably the angry man drew in his horns and grumbled out something like "Oh, well, he isn't so bad, may be."

You would prefer to be just, doctor, and to give your whole thought to your duties as such—but you can not. You have to pay your way and be also business man and—chiropractor.

A hair on the head is worth two in the brush.
—Edwin F. Bowers.

PREPARING FOR TETANUS

We have long believed that the antitoxin for tetanus is a reliable prophylactic against tetanus. The fact has been further established, and now beyond a question, by the combined experience of all the enormous armies operating in Europe. In the terrain where the great battles are being fought in France and Belgium, the ground is heavily manured and infected with the germs of this disease to such a degree that a very large percentage of the wounded are likely to become infected. Early in the war, before it was possible to immunize any considerable number of the wounded, the number of persons who became affected and the percentage of those that died was extremely large. However, it has become the custom to administer tetanus-antitoxin to virtually every wounded soldier, at least whenever the preparation is available, and there is no question whatever that when given early it prevents the disease.

This experience should be brought home to every American physician, especially at this time of the year, inasmuch as the number of contaminated wounds is likely to be large. Fourth of July wounds have always been peculiarly deadly, primarily because they are liable to be infected with street dirt, which carries large quantities of the tetanus-bacillus, and, secondly, because there is a very considerable portion of contused and perforating wounds.

The tetanus-organism is anaerobic, that is, it thrives best in the absence of air. Any dirt- or dust-infected perforating wound, therefore, which shows a tendency to close over provides favorable conditions for the development of the disease. Every such wound should be laid wide open so as to permit free access of air to the most remote portions, and it should be kept open and allowed to heal from the bottom up. In addition, every patient who has received such a wound should be given a prophylactic dose of 1500 units of tetanus-antitoxin.

This should be considered an emergency-remedy, and, if it is not available at local sources of supply, the physician should carry a small stock for emergency use. While it may be true that 98 percent or more of persons who receive wounds of this character will escape tetanus, the fact that even one or two persons may contract the disease should be sufficient incentive for the physician to be prepared. We strongly urge the use of this antitoxin by everybody, in every part of the country, in every case of perforating wounds.

Life is short—only four letters in it. Three quarters of it is a "lie," and half of it is an "if."

A MESSAGE FROM IOWA

Last week we journeyed into Iowa with a number of pharmaceutical manufacturers who make preparations for sale to the medical profession, to attend the annual meeting of The American Association of Pharmaceutical Chemists, which was held in Cedar Rapids, May 29 to June 1. I shall not try to tell you about this meeting, for you are not primarily interested; but it was a good one. We got our feet under the table and swapped experiences with a lot of fine men, representatives of houses like the National Drug Company, The Standard Chemical Company, The Norwich Pharmacal Company, The Zemmer Company, The Maltbie Chemical Company, G. D. Searle & Company, and a big bunch of others, fifty or more all told and, therefore, too numerous to catalog here. They were all earnest, hard-working fellows, none of whom are building up great fortunes, and all doing their level best to produce remedies of quality which shall merit the approval of the medical and allied professions. They deserve your confidence, and I am glad to tell you so.

We enjoyed this meeting and profited by it, but—Iowa itself was the big exhibit. From the time we entered the borders of the state, Iowa "boosters" were singing pæans of praise for the state which they call home. And I don't wonder. Iowa is a great, splendid, prosperous state, teeming with the unparalleled richness of her fat acres, bringing comfort and wealth to her children to a degree realized in no other part of the country—barring only the contiguous prairie states of the Mississippi Valley.

Our first stop in Iowa was in Des Moines, where we were entertained by Mr. G. D. Ellyson, president of The Standard Chemical Company, and his associates of that company, and by representatives of the Chamber of Commerce, the Manufacturers' Association and the Greater Des Moines Committee.

Mr. Ellyson and his friends, including particularly R. H. Faxon, V. C. Fitch, George E. Hamilton and Ralph Bolton, official representatives of the various boosting organizations of Des Moines, made our visit to that city one which none of us will ever forget.

After a breakfast at the Des Moines Club, where we were greeted by some of Des Moines' leading citizens, who took this meal with us at 7:45 a. m., when most prominent citizens are supposed (erroneously) to be still in bed, we visited the Capitol building, meeting the secretary of state, the adjutant general and other state officials. Next we went through the splendidly appointed new pharmaceutical plant of The Standard Chemical Company (where we found an "oasis"), and finally brought up at the lunch provided for us by the Chamber of Commerce, where short talks were given by Mr. Ellyson, Mr. Maltbie, Mr. Dunn, Doctor Abbott, and others.

In the afternoon we were shown Des Moines' hundreds of attractive homes in a long automobile ride, which finally landed us at Ellysonia, the beautiful bungalow of our host. Mr. Ellyson and his good wife took good care of us. We were given something to eat and something to drink, were regaled with music, cheered with good-fellowship, and throughout made to feel thoroughly at home. Everything possible which could contribute to our comfort and happiness

seemed to have been thought out in advance, and carried out with the simplicity, earnestness, and thoroughness that shows what a good business man and splendid fellow Ellyson is. There was a vote of thanks, and a few well-chosen remarks by Doctor Abbott, voicing the common sentiment of appreciation for Mr. and Mrs. Ellyson, to which Mrs. Ellyson responded in a few happily chosen words expressing the pleasure it always gave her to assist in entertaining Mr. Ellyson's business friends in their home. It was the joy of their life, she said, to be able now and then to contribute a few flowers along the pathway of life, and she was pleased and proud to have Mr. Ellyson's business competitors assure her that he was carrying these same principles into his business.

Miss Daisy Binkley then sang for us Carrie Jacob Bond's famous song, "A Perfect Day," and, "to give the finishing touch," Mr. Ellyson said he knew of no better way to express his feelings than by some old lyric Scottish lines:

> Friendship makes us a' more happy
> Friendship gee us a' delight
> Friendship consecrates the drap-e,
> Friendship brings us here tonight.
>
> Happy we're bin a' togither
> Happy we're bin yin und a'
> May time find us a' the blither
> When we rise and gang awa.

Then we were loaded on the train for Cedar Rapids.

During our stay in Cedar Rapids, association business was the main consideration, and there was much of it, so there was less time for play. Manufacturing pharmacy has its problems, and in this day of drug shortage, heart-breaking prices and manufacturing difficulties, they are by no means small ones. But that prince of good fellows, Mr. E. S. Holt, of The Howard Holt Company, was our host in this city, and again we were entertained as they know how to do it in Iowa. Representatives of the local organizations, of the Commercial Club, the banks, and others—men like Wunderlich and Hamilton—were on hand at the banquet and elsewhere to tell us about their town and help us have a good time. We visited the plant of The Quaker Oats Company, the biggest concern of its kind in the world, and most of us got a glimpse of the wonderful resources of this section, which is probably the richest in the entire United States.

Iowa, we learned from Hamilton, the banker, has one automobile for every fifteen of its inhabitants; and if the time should ever come when it shall be necessary to follow Mr. Bryan's military strategy, this state could load every one of its male inhabitants into their cars—and they are not all Fords—and proceed on short notice (over the finest highways in the Mississippi Valley) to meet the enemy and—tell them all about the glories of Iowa. Victory would inevitably cool her weary feet on the banners of the legions of this state—for there could be no escape.

Iowa raises more and better corn than any other state. Her barns and grain elevators are bursting with bumper crops of oats, hay, barley, rye and other grains. Her cattle exceed in value those of every other commonwealth—barring one only. Hamilton told us of the herd of a hyphenated farmer living near Cedar Rapids whose eighty animals sold at auction for more than $50,000. Iowa likewise leads the world in hogs—but praises the Great Jehovah for the unrivaled generosity of her citizens. And her doctors, as every Iowa reader of these lines will admit, are all picked-to-win warriors in the ages-old struggle with Apollyon Disease—and we know that with only inconsiderable exceptions they pay their bills.

Iowa is rich, proud, prosperous, and happy. Best of all, she is productive, not parasitic—adding to the world's wealth instead of subtracting from it. Perhaps that explains why we saw smiles on so many faces. Their hearts are right!

Their hearts are right—that's it; and the thought brings me back to Doctor Abbott's brief message to Mr. and Mrs. Ellyson at their home in Des Moines. In business and professional life, as the doctor pointed out, the big thing isn't the money we make—it's the friends we make, the love we inspire, the confidence we win from those whose hands touch ours in the contact of daily life and over the bridge of commerce. Ellyson loves his wife and she loves him, and because of this love theirs is the perfect teamwork which makes the game of life worth playing for them.

The same feeling can be and should be transplanted into business. Ellyson is doing it—as everyone should. Better than money in the bank, more heart-satisfying than the ability to hold some small segment of the earth's surface and the people on it in the hollow of your hand, at your mercy, yours to be crushed or made at will, is the consciousness that love and mutual confidence rule your association with your coworkers—even with your competitors. The big success is won when cheerful faces greet you at every turn; when men stop you on the street with a "Hello

Gid—how are you, old man?" and slap you on the back in a way that makes your pulse beat quicker, and gives you courage to keep up the fight, stirring your heart to nobler, cleaner, bigger work.

Love that inspires confidence is the biggest thing in life, and it should be the greatest factor in business. I confidently believe that it is becoming so, and that the old days of cut-throat competition, harking back to the elemental man, whose fondest wish was to brain somebody with his stone-axe, are passing forever, to be replaced by a period of cooperative competition, in the professions as well as in business, during which success shall come to him who gives the best service and therefore inspires the greatest confidence. *And the inspiration will come from our friends —"God bless 'em one and all,"* to paraphrase the remarks of Little Tim.

And that's the biggest message we brought back from Iowa.

If one could choose one's parents, it would be perfectly proper to be proud of one's ancestry.

TOO MUCH ANATOMY AND SURGERY

The root of the prevalent pessimism in regard to the value of drugs is to be found in the overweening importance long given to the study of anatomy. Even as long as fifty years ago it was not uncommon to find students in the medical colleges who prided themselves upon devoting their whole attention to this one study—and upon their ignorance of all the rest of the curriculum. Is there in existence a man who can remember any student who thus prided himself upon his knowledge of physiology?

The anatomist developed into the surgeon—and the surgeon has always licked off the cream. Dealing only with the failures of the internists, the surgeon may be pardoned for failing to realize that these comprise but a small part of the internists' experiences.

Today there are none but surgeons and pathologists; and both concern themselves with the dead, with the end results of disease-processes, paying little attention to the morbid processes that lead to these endings. As we have often remarked, they deal with the ashes of burntout fires. Of functional affections, they never speak except with contempt, and interest themselves only in maladies affording material lesions—and in the presence of these they acknowledge their impotence. No man may claim to re-create a solitary living cell. The medical profession is today, with scarcely an exception, engrossed in the study of the dead body and of destroyed tissues.

In the course of every disease, there must be a beginning, a period when the affected tissues are assailed but not yet irremediably impaired. We can not study this period in the laboratory, for the man is not yet dead, his affected organs still are functioning. The study must be made in the greatest and most neglected of laboratories—the sick-room. Lay aside your microscope and apparatus and study the man!

Every aberration from normal function has a meaning, a cause. Trivial these may seem—so is a drop of water trivial, but, put enough of these drops together, and the world may be drowned.

Sneer at these functional disorders and wait until material lesions have been perpetrated—and then acknowledge your inability to do anything? Oh, no, we are not helpless at all; we can step in and remove the useless apparatus, the pus collections, the end results that endanger the life of the patient. Yes, this comprises the sum total of the professional resources today. As for curing diseases before they have gone on to destruction, that is not considered at all.

This condition has never been acknowledged, and it may be vehemently denied now. It is true, nevertheless. There ever has been a tendency on the part of the medical profession toward abstract science—toward laying the foundations so deep and wide that by the time the surface has been reached there has been nothing left with which to erect the building.

Against this lofty professional ideal, there has always been a disposition to rebellion. Every man is more interested in himself than in his disease. To him, the cure ranks higher than the diagnosis. The history of medicine shows an uninterrupted sequence of uprisings of "outsiders" who professed to cure; and, although these have been men not versed in the lore of the schools, they invariably have met with a hearty welcome from the people. Not one of them has been noted for his discoveries in pathology, his skill in diagnosis, his knowledge of anatomy; but every last one of them has known men and has devoted his energies to the cure of their ailments. And every last one has had the support of the public.

These men have studied the symptoms of living men and have directed their efforts at curing them. Swiftly the public has rushed to them and deserted us. The reason

is, that the pretenders gave the people what they wanted, while we proffered them what we thought they ought to have. We have failed to realize that the study of sick men is a specialty, and that men of average learning and intelligence who devote themselves to this specialty are as likely to develop special skill in it as will the votaries of any other specialty.

Doctor, can you hold your own in the sick-room against the homeopathist, the eclectic, the physiomedic, the osteopathist, the Christian Science healer, the Chiropractor, and the rest of the innumerable rivals that throng about us?

True, we have gone into their methods in our ponderous way, and in due time announced that there is something of value in each, and then proceeded to appropriate and assimilate these with our other methods. We never succeeded as well as the originators. We fail, because we do not realize the one fundamental truth in all of these; which is, that they are based on a study of the patient. The book of nature is greater than all the printed books put together; and nature changes not, while few medical books are worth anything a few years after their appearance.

This morning comes the news that J. J. Hill is dead. The newspaper report speaks ambiguously of an "intestinal infection." Most probably constipation and autotoxemia robbed the world of this noble man. Neither the Mayos nor the New York surgeon summoned half across the continent, nor all the surgic skill in the world could save him. Yet, every one of us is aware that, had he been under the direction of a physician who comprehended the importance of the alimentary canal and could have applied the "clean-out, clean-up, and keep-clean" method, the great empire builder might have been spared for many years yet. But, the motto of the day is, "Wait until it is ready for operation. Meanwhile, do nothing."

The times are ripe for a great popular rebellion against this thing.

If God did not exist, it would be necessary to invent him.—Voltaire.

CLEAN THINKING AND CLEAN SPEAKING

Physicians as a class are frequently credited, or charged, with habits and peculiarities that are hardly in keeping with the seriousness of their profession and with the character of its devotees. It is, for instance, a common idea that physicians are materialists, or atheists, because it is believed that they refuse to accept what they cannot demonstrate with the scalpel, under the microscope or in the test tube. Thinking people will readily see that the very study of anatomy, physiology, biology, and of all medical and allied disciplines makes it impossible for the student to acquire or to retain atheistic views.

It is also frequently assumed that physicians, at least in their leisure moments, are prone to be somewhat loose in their talk and that they are experts in telling stories that have been characterized vulgarly as "smutty." We venture to say that physicians, as a class, are more guarded in their language and more careful, not only in clean living, but in clean thought, than are many other men; although even for them the truth must be admitted of the saying of old, "*Homo sum, nil humani a me alienum puto.*" In an address recently delivered before the Christian County (Kentucky) Medical Society, Dr. J. W. Crenshaw insisted, with great justice, upon the necessity on the part of the physician to guard his thoughts and his speech. By pointed instances from his personal experience, he demonstrated the abhorrence that is liable to be inspired by vulgar, profane or obscene talk, and, conversely, the favorable impression that is made by straightforward and dignified language.

Undoubtedly most of us do express ourselves in a simple and dignified way and refrain from vulgar profanity, more particularly from using the name of the Lord in vain. We, as a whole, also have an inherent distaste for the obscene and suggestive, and, yet, most of us, it must be confessed, have slipped at one time or another and have indulged in "language" or have participated in or countenanced risky stories told in our presence. It is strange how our natures are often mixed, and we are reminded constantly of the double entity that is asserted to be living within us, and which Goethe has described so eloquently.

The writer is reminded of an old professor of anatomy in one of the Swiss universities, who was a regular terror for spicy stories, and who for that reason produced an ineradicable impression upon the minds of his students. One day, however, after telling one of his best (?) stories, he raised himself up to his full height and said, in all seriousness, sincerity, and good faith: "Gentlemen, never forget to take off your hat to, and to respect, every woman who gives a child to

the world." The anticlimax was marked, and that professor was forgiven for many stories that often had brought a blush to the faces of even his somewhat callous students.

It is important that physicians guard their speech and also their thoughts. It makes a bad impression to see them smile and sneer at things that are serious and sacred. It is also painful to hear them indulge in profanity and vulgar cursing. "Let your communications be, yea, yea; nay, nay: for, whatsoever is more than these cometh of evil."

Now, forget your haste, just for a second or two, let go pushing the train you are riding in, stop trying to do all your work at once; and perceive how deliberate, how regal, how indolent your soul is, how sure of itself, how indifferent to the petty chances of punctuality or accomplished toil.

Bliss Carmen

A DREAM? A FLORIDA COLONY FOR AGED DOCTORS

There is no living man but will acknowledge that eventually death will get him, while few, if any, there are who do not go on as if they expected to live forever. Express trains and taxes come at definite times, but death is so very remote that we really look upon it as upon the millennium—too far away to be practically considered. So, ever and anon someone of our fellows is stricken, and then we talk sagely of the inevitable end of his course of life; then go on living just that way ourselves.

Another matter that but few contemplate is, the supervening of age. Youth doesn't care. Manhood is too busy. Both are too well established in their forces to realize that time will surely sap them—that the days must arrive when "they have no pleasure in them," when the tides of vitality ebb, the zest of pursuit weakens, the blow lacks "steam," and the objects of endeavor appear to be little worth the effort. To me, the world offers no spectacle so pitiful as the doctor who has outlived his ambitions, his beliefs, his kindred and his friends, and who in his days of decay must still work to sustain life—having in his busy manhood days, been too much absorbed in the Present to take thought for his Future.

How easy it would have been to put aside a trifle regularly, that would not have been missed then, but for the fewer needs of age would have formed a sufficiency.

You know all this. That's just the trouble—you know it but too well. You read it, yawn, and straightway forget it—you consarned old dubs! Now I want you to do something—to act upon it.

Doctor Cuzner is one of those men who, even in his well-earned retirement, can not keep quiet—he must be doing something useful to his race. So, he wants to donate four acres on the St. John's River, in Florida, as the nucleus of a home for elderly retiring physicians.

I know the place. Location, climate, salubrity—the combination is as near an earthly paradise as any of us is entitled to. The region has the warmth that we desire and need, the exuberance of vegetation, the fertility of soil, the invigorating salty seabreezes, the bathing, boating, fishing; the only drawback is its close proximity to Jacksonville. Still, some of the possible future denizens of this retreat may be infected with the movie-craze or other form of city-madness, and, so, not feel this feature as a serious objection.

This arrangement may do for a starter—but only that. Some of you may want a five-acre tract and a hut on it with plenty of well-screened, open porch-room; also, pure water and good bathing; the tract planted with whatever is best suited for it—a good kitchen-garden, fruit, and nuts; pasture for a pair of milch-goats; chickens and other domestic fowls; a kennel for a couple of Airedale's. Moreover—all that for a cost inside of five hundred dollars!

Suppose 100 join in this, each putting up that sum, payable in monthly installments of, say, ten dollars, and form an association; providing such regulations as shall forever shut out the greedy monopolist. No salaries, no forfeitures, no expenses, except what may be provided for by a small quarterly fee—say, $2.50 each—or $5.00 a year from the 100 members. Buy a suitable tract and divide it into the 5-acre lots, letting these be drawn by lot, and each to be free to develop what he wishes on his own. We may raise oranges, lemons, grape fruit, bananas, sapotes, tamarinds, plantains, celery, peanuts, pecans, garden-truck, berries, peaches, grapes, bulbs, flowers, drug-plants, palms, ferns, mushrooms, pineapples, camphor, tea, silkworms, frogs, terrapin, trout, any bird or animal that is worth cultivating—the number of things one might make a hobby and (perhaps) a good living from is beyond computation. These call for thought, reading, time, and as much actual outlay of money and muscularity as one may have to spare.

Meanwhile, one may well expect that such a settlement would attract a goodly number

of our old friends and patients who might be in need of just such conditions as ourselves and desire to be within reach of their trusted adviser of years. My specialty is, the Prolongation of Life, and I should expect to form on my acres a colony of those who care more to live long, happily, and healthily on this planet, rather than to pile up scads for the ruin of their children. Incidentally I should try out the suspicion that from the alligator a serum might be developed that would cure tuberculosis!

Now, if any of the many thousands of readers of this journal feel that this plan offers allurement, let us try it out. First must come the cash. I won't have it; the safest man to handle it is yourself. Each month put in the savings bank what you can spare. When you have $500 ready, let us know; and as soon as enough are ready, we shall meet at Cuzner's and select a location.

Personally, I like the idea of an undeveloped tract that can be bought for little—preferably far distant from the towns, accessible only by boat so as to keep away undesirables and tramps. With such a tract, we need not wait for the 100 to put up the sum named, but could begin sooner.

That is one plan. If anybody has a better one, let him write at once to this journal. The more the better. But—just think of the roaring old Christmas celebrations we should have in Florida, with the children flocking in from all parts of the North ! ! !

It is easier to miss a piece of great fortune, than to bear a great misfortune.—Heinrich Heine.

REMOVE THE CAUSE

That the cause must be removed is an axiom in therapeutics, to which deservedly great importance has been attached; but the universal tendency to make a fetish of any good thing as soon as its value has been once admitted is shown here. One would imagine that the sum total of our possible beneficial intervention was comprised in this one thing.

In his day, Brown-Séquard acquired great kudos by adverting to the influence of reflex irritation from local causes in the induction of epileptic seizures. His world-famous case was that of a boy who had a convulsion whenever his foot pressed against the floor. Examination detected a something like a grain of sand on the sole of the great toe, pressure upon which occasioned the spasm; and removal of this granule cured the malady.

Years before this time, Esquirol had observed similar phenomena, but also that the removal of the excitant did not always cure the malady. This is in closer accord with this writer's personal experience, that such striking grand-stand plays as that of the illustrious Creole are not always successful.

Removal of the bullet does not cure the wound. In the presence of such maladies as the vomiting of pregnancy, the law-abiding or conscientious practitioner will stop to ask himself, "which cause?" before proceeding to its abatement. Aside from all such conditions, we have also to consider that many maladies may be set in motion by special irritations, but continue after the original cause has ceased to act. This may be from habit or because the affection once set in operation has no intrinsic tendency toward cure.

Let us not go to the other extreme of neglecting or undervaluing the etiologic indication. There may be an anomaly that is the origin of a whole vicious brood of reflexes that can not be controlled as long as the cause remains in operation. We have, then, a leakage of the nerve-force, that keeps the patient always drained, never allowing an accumulation of energy-surplus to be made for special demands. Every such special demand finds the patient unprepared, and nervous and psychic pnenomena appear.

Case: A lady has constant headache and pains and tendernesses along the cecum and colon and in the region of the right kidney; digestion is imperfect, bowels are sluggish, sleep is disturbed and unrefreshing, health impaired, metabolism sluggish. As a matter of course, she had been to Rochester, and the very thorough examinations made there had not detected any disease. Sixteen years previously she had had the right kidney anchored, to remedy nephroptosis. An abscess followed, this discharging into the urinary ways. She has never been well since.

A finger being inserted into the rectum, an exceedingly sensitive and spasmodic sphincter was encountered and the whole train of nervous phenomena was aggravated thereby. The sphincter was dilated thoroughly. The nervosa were but slightly modified. To make this an ideal report she should have been immediately relieved, and we should have had a fine opportunity to crow over our great northern colleagues—but we hadn't. However, the way was cleared for really curative treatment, for we learned that we had to deal with a chronic catarrhal condition of the large bowel, with muscular paresis, fecal absorption, and its consequences.

Treatment commenced with a decided, positive promise of a cure, which would take time, "since chronic maladies require chronic treatment." Rhubarb was given with hydrastis, and sanguinaria. Of this combination a dose was ordered each morning; if the bowels did not move by noon, a second dose was to be taken; if not by evening, then a third one. If this did not suffice, she took a warm enema, with 30 grains of zinc sulphocarbolate added; this followed by a half pint of quite cold water as a bracer for the sluggish tissues. Six Bulgarian-bacillus tablets administered daily, to supply the intestinal tract's defenders an adequate reinforcement. Diet was carefully arranged, so that she ate some of every food placed on the table at *table d'hote* meals. But she ate properly, masticating and insalivating her food thoroughly, took no cold fluids while eating or anywhere near meals, and avoided excess of total quantity as well as of each of the divisions of foods. Between meals, she did no nibbling, but if hungry took a cup of clam-broth or of hot salted milk. All the elements of personal sanitation were arranged with scrupulous care.

One more item—we have a group of remedies whose value is rarely appreciated even by well-informed and experienced therapeutists—the sedatives. Gelseminine, cicutine hydrobromide, and solanine, sedate the nerve-centers, without the debilitating action exerted by the bromides, in effective doses, over the digestion and the vitality. They lessen the irritability of the long-overexcited nerves, and our curative treatment will be accelerated. So, she received gelseminine, a full dose of 1-50 grain two to three times a day. No such perils are encountered as with opium derivatives; no habit possibility or nerve degeneration looms in the background. Instead of having the hemic toxins thrown back into the cells, as with morphine, they are thrown out of the body by the eliminants.

The result?

We *said* she would get well; and when one deals with therapeutic certainties, such positive prognoses are permissible.

Open the door of truth and falsehood, and it will certainly be a lie that will enter first.—Napoleon III.

AS TO SOME OF OUR INSECT ENEMIES

The Chamber of Commerce of the United States has just issued a bulletin calling attention to the menace of the boll-weevil to the cotton crop of the South, and to its vast economic importance. Twenty-three years ago, this exceedingly undesirable immigrant eluded the officers on guard along our Mexican border and slipped into Texas. Since that time, the weevil has steadily extended its habitat, until now its ravages cover the greater part of the western cotton-belt, while extending over the rest at the rate of from forty to seventy miles a year.

The economic loss from this pest has been immense; yet, the cotton crops of the country have increased and also certain compensations have followed. The planters have been driven to study methods of seed selection, cultivation and management in order to meet the evil, and, better yet, to that diversification and rotation of crops that goes so far to establish an insurance of agricultural returns. With them it has been "cotton, cotton, and nothing but cotton" for many a year, until the laboring class of that region has become incapable of doing any work but raising cotton. This developed slavery, since cotton demanded a certain quantity of labor virtually all the year, while the cereals called for help only during the planting- and reaping-seasons. A good crop of cotton paid such rich returns that the planter could not be persuaded to raise anything else; and the huge profits of the fiber-plant went to pay for food and other needs of man and animal.

A crop that returns annually the full value of the land, anywhere from fifty dollars to one hundred dollars per acre, surely seems preferable to one the net value of which does not exceed much more than half as much. Part of the apparent profit is lost in poor crops, part in the low prices ruling some years; but possibly the peculiar habits of finance fostered by this one-crop system have more to do with the matter. The cotton-raiser has no income during eleven months, while for one he is affluent. Borrowing seems a necessity, even at very high interest, for such crops warrant this; and then comes such a wealth of funds that lavish expenditure is the inevitable sequence of months of penury. Indebtedness and free spending are habits easily acquired, and not readily broken. Nine percent usury seems little as compared with 100 percent profit; but the one is sure, and it surely eats up the debtor in time. The openhanded hospitality and the charm of manners that render the South so delightful to visitors are so inseparably connected with this one-crop system that one may well ask whether a change is likely to alter the ways of the citizens. If so—let us have less cash in bank and keep things and people as they are.

Many efforts have been made to stay the

ruin induced by this pest of the cotton-boll-weevil. Sprays and poisons fail, because they act on the surface, while the insect burrows into the downy bolls. "Burning or plowing under the infested cotton-plants in the fall, burning all brush heaps, picking and destroying weevils that appear upon the young cotton, picking and destroying the infested squares during the growing season, rotating crops so that the weevils find no cotton to feed upon when they emerge from their hibernating quarters are some of the remedies that experience has shown to be the most effective." Sunshine, hot dry weather, many birds, and about 45 species of predaceous insects that prey on the weevil are among our effective allies in this war.

Only about three percent of the weevils survive the winters; and it is said that the districts that suffer from overflows of the great river are comparatively free the following season. The report states that the weevil has no other food but the cotton; but this is a mistake, for it has been shown that the insect lives on the okra, milkweed, and a number of other plants, although it prefers cotton. Were it not for this, the spread of the pest might be stopped by establishing a 100-mile neutral zone about it, in which no cotton should be grown for a year, so that, by repeating this each year, the invasion might be beaten back to the original source. As it is, the insect has become domesticated in the United States and seems to have come to stay.

In the Mississippi delta an effort is being made to get rid of the weevil by rotation of crops and by planting the cotton very early, so that it attains an advanced stage before the weevil makes its attack. Altogether, this forms one of the most interesting phases of the war waged by man to wrest nature from its savageness and bend its forces to our will.

The report concludes: "It is a curious and significant fact that the life-history of the South—social and economic—is bound up in the story and the conquest of three insignificant and malignant insects—the Texas fever, or cattle-tick, the cotton-boll-weevil, and the malaria-bearing mosquito."

The study of the tick and the mosquito has progressed so far that we now know how to put an end to their ravages. The tick is exclusively carnivorous. Hence, when the cattle on a ranch have passed through the disinfecting-tank, they should be confined to a corral for a certain period, during which the ticks in the rest of the ranch starve. Then the cattle are again dipped and excluded from the corral. Such a ranch will be free from ticks.

The efforts to exterminate the mosquito are useful, but not always completely successful, since the insect may breed even in the drop of water at the axils of leaves. But the great discovery is, that man is the source of malaria-infection for the mosquito. He is the carrier who retains the plasmodia from one season to the next and reinfects the lady mosquito at her first visit. It is not enough (although it helps) to prevent access of mosquitos to the man who is actually down with malarial fever, but the carriers should be detected and cured. Bass and his associates are endeavoring to persuade the people of the malarial districts to undergo expert examination for the parasites, during the winter when they are dormant, and then, effective quinine dosage may put an end to the malady in that district.

It is a very easy and simple matter thus to ascertain the source of the evil, and devise the means of ending it; but the labors of Hercules were the merest child's play beside that of inducing the people—all the people—to adopt these measures. Those who are younger and more optimistic may tell us why typhoid fever exists, when it could be so easily ended, were every doctor to see to it that the excreta of his typhoid-patients were put to soak for some hours in freshly prepared whitewash.

But, if the most intelligent, most progressive, and most erudite class of the community —the doctors— fail to adopt universally this easy measure, how expect the entire population of a malarial belt to accept the costly and, to the less-learned laity, rather appalling procedures of blood examinations and quinine dosage in effective quantities? There would surely arise enough antiquinine individuals to render the procedure nugatory.

Memory is a good thing, if properly regulated. One should forget to remember some things, and remember to forget a great many more.—"Modern Society."

PRACTICAL POINTERS FOR JULY

One of the best remedies for diarrhea in children or adults is a good culture of the Bulgarian bacillus; and it is harmless.

One of the best remedies for postoperative shock is a camphor in oil solution, administered hypodermatically. Give 1 1-2 to 3 grains at a dose.

Giddings' "high shock enema" consists of black coffee, brandy, salt solution, each 2 ounces, together with 1 dram of adrenaline

chloride solution. It should be administered at a temperature of 110° F.

Our southern brethren should tell us more about pellagra. Is it caused by diet? Is it cured by diet? How many of you accept the Goldberger hypothesis? How do you treat it?

The Bulgarian lactic-acid bacillus has been tried, and (it is said) found effective, in the treatment of pellagra. We should have more reports regarding this use of this remedy.

Are you looking for a real sedative—one that will take the place of the bromides and is free from the manifest disadvantages of these powerful drugs? Try solanine. Use it in epilepsy or in any other condition where sedation is required.

Theories may come and hypotheses may go, but our faith in intestinal antiseptics increases in spite of them all; and the authorities are beginning to take them up! After all, there is no better remedy than the sulphocarbolates for the treatment of the infected alimentary canal. "Dose enough."

For seasickness and carsickness there is nothing that acts with such certainty as a combination of strychnine sulphate, hyoscyamine and caffeine. Substitute atropine for the hyoscyamine if you wish.

Sunstroke? If there is high temperature, put the patient in a cold bath, and rub. If there is heat exhaustion, with pallor, stimulate. Try lobeline hypodermatically to relax if there is any tendency to spasmodic states.

We have never lost our faith in the intestinal origin of pellagra, and now new evidence seems to be accumulating that, after all, it is an infectious disease. Read the report of the investigations made by the Postgraduate Medical School and Hospital, of New York, as given in "What Others Are Doing," this issue.

To control post-anesthetic thirst, give a high rectal enema of warm salt solution as soon as the patient leaves the table. The average rectum tolerates and retains from four to six ounces every four hours; therefore, repeat the dose p. r. n. An occasional sip of hot water controls thirst better than the most generous draught of cold water.

The latest cure for pernicious anemia is splenectomy. This procedure was first undertaken by Eppinger and De Castellani and has recently become very popular in this country. It was the subject of a symposium at the meeting of the American Medical Association in Detroit. Remarkable results were obtained in some cases, in fact, in a collated series of cases improvement was shown in 63 percent.

The Fowler, or semi-erect position, says Giddings in *The Boston Medical and Surgical Journal*, is one of our greatest assets in treating cases of appendicular abscess, septic peritonitis, or any condition in which the patient has been exposed to abdominal infection. In this position all the fluids gravitate to the pelvis, the lymphatic supply of which is relatively poor. This, of course, means less absorption. The fluids in the pelvis are readily carried off by the use of the Murphy rectal "drip."

In treating intestinal stasis, Eggleston (see *Medical Record* of March 4, 1916) advises a bulky diet to stimulate peristalsis; reduction of proteins, to lessen putrefaction; lactic-acid forming bacteria, to check the growth of putrefactive organisms; with agar-agar, bran and a mineral oil for their laxative action. Speaking of mineral oil, use one of the delightful emulsions now on the market, especially if your patient is a woman with a highly sensitive sense of taste.

Doctor Waugh says there are two forms of bronchial asthma. One is relieved by a good-sized hypodermic dose of atropine, the other by a relaxant hypodermic dose of lobeline. Free the bowels completely, since many cases are autotoxemic; allay nervous irritability with the milder antispasmodics, such as passiflora, cypripedium or scutellaroid; carefully regulate nutrition and personal sanitation in all its branches; and cure any local affection, however slight and apparently inconsequential. Provide a vital interest and prevent introspection, and your patients will do better.

The veterinarians are using a great deal of lobeline sulphate and they recommend it in the highest terms as a virtually nontoxic antispasmodic, acting quickly and allaying excitement due to various causes as few other remedies can do. They are using it in the treatment of tetanus, in flatulent colic in horses, in heat prostration, and in various other conditions accompanied by spasmodic and excitable states. Here is a hint for the human doctor. We know that lobelia is a favorite antispasmodic remedy with the eclectics. Lobeline is more exact, and we believe it will give results obtainable from no other preparation. It can be given either by mouth or hypodermatically. It should be tried in sunstroke, eclampsia, and other convulsive conditions, pushing to thorough relaxation. Doctor Ellingwood declares it is the best remedy in pneumonia, and praises its action in sciatica and lumbago.

Leading Articles

Chronic Prostatitis, and the Technic of Prostatic Massage

By William J. Robinson, M. D., New York City

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I OWE a humble apology to the readers of Clinical Medicine. I promised a series of articles on the prostate gland for the pages of this journal. I expected to be able to furnish one article every month or at least every other month. Unfortunately, the demands of a constantly growing practice (a practice which is of so personal a nature that it cannot well be handed over to assistants), and the increasing demands of journalistic and literary work have made it practically impossible for me to do any outside writing. For some time to come, it will, therefore, be impossible for me to contribute regularly to the pages of this excellent journal; however, on an occasional contribution now and then the readers of Clinical Medicine may safely count. I know what an appreciative audience the readers of Clinical Medicine constitute, and I should not like to part company with them altogether.

In my previous articles, I several times mentioned the subject of prostatic massage. I was under the impression that every physician was familiar with the technic of this procedure, but this does not seem to be so, and a great number of physicians have written me, asking that I give them a brief description of the technic of massage of the prostate gland; others requested me to furnish an article on chronic prostatitis.

Many physicians seem to have a personal interest in the subject, for the number of physicians over 40 years of age who suffer from this affliction seems to be enormous. It appears that at least 7 out of every 10 physicians have some form or other of prostatitis or hypertrophied prostate gland.

As I have treated the subjects of prostatitis and of prostatic massage elsewhere, I can do no better than to quote from my "Treatise on Gonorrhea" and my other writings on the subject.

The Causes of Prostatitis

One of the most important factors in the etiology of chronic prostatitis is gonorrhea; still, gonorrhea does not play the same relative role in the causation of chronic prostatitis that it does in the causation of acute prostatitis. In the latter form, gonorrhea is preeminently the principal factor; other causes play but a subordinate role. This is not so in chronic prostatitis; while, as I have said, gonorrhea does play a very important role, other factors are also of great importance.

Among those factors of chronic prostatitis, we may enumerate chronic urethritis of whatever origin; masturbation; sexual excesses (that is, too frequently repeated natural sexual intercourse); coitus interruptus; complete abstinence, particularly if accompanied by excitation, mental or physical, without gratification (it is remarkable how the overuse, abuse or the nonuse of a function frequently leads to the same result), a steady, long-continued sedentary life, chilliness or colds from sitting on a cold stoop, and so on; catheterization; stricture; and long-continued cystitis.

Symptoms of Chronic Prostatitis

The symptoms of chronic prostatitis may vary from the mildest to the extremely severe. There are cases of prostatitis which are symptomless or practically symptomless, and there are those that assume the character of a very serious malady.

The symptoms of prostatitis may be classified as local, sensory, urinary, sexual, and general nervous.

The *local* symptoms are those that we discover by an objective examination. The prostate gland is usually enlarged, soft, boggy; either soft throughout or soft in some spots and hard and nodular in others; more than normally sensitive on pressure; and it exudes a turbid lumpy secretion when expressed.

The *sensory* symptoms are: heaviness and a dragging sensation in the perineum, pain in the prostate gland and the perineum, and pruritus ani or itching around and within the anus. The patient cannot sit comfortably for any length of time in one place and likes to shift his position. A symptom that can be frequently observed by the careful observer is, that the patient, when sitting down, will sit on the edge of the chair and, if the chair permits it, on one buttock only. Walking is less annoying to him than sitting or standing. He feels most comfortable lying down. While the pain may be limited to the prostatic region, it may—as is easy to understand in the case of an organ so rich in nerves as the prostate gland—radiate to various parts of the body, to the testicles, urethra, penis, thighs, and small of the back. The pain may also radiate to the kidneys and simulate the pain of renal colic. Personally, however, I have not seen such cases. In renal colic, the pain is too acute, too sharp to be mistaken for the dull, gnawing pain of prostatitis. Nevertheless, some authorities claim to have seen such cases.

A very frequent and most annoying symptom is, a leaden heaviness in the calves of the legs and also a burning in the soles of the feet. These symptoms make themselves particularly noticeable in the afternoon, around about 4 o'clock. I have been able to diagnose prostatitis in a great number of instances from these two symptoms alone. With the cure of the prostatitis, these symptoms disappear.

The Urinary Symptoms

One of the most common symptoms is the *frequency* of urination. The patients may have to urinate every two hours or even every hour, and, if they happen to drink some irritating liquid, such as beer, may have to urinate as often as every fifteen or twenty minutes. They also have to get up in the night from one to four times. Another symptom is the urgency of urination. There is a difference between frequency and urgency. A person may feel like urinating frequently, but, if he is unable to urinate at a certain time, it may cause him no effort to retain his urine. In the case of urgency, however, when the desire to urinate comes on, it must be complied with instantly, or the patient is liable to wet his underwear. There is a disagreeable, perhaps scalding, sensation on urinating, and there is dribbling of urine after the act. The size and character of the stream is often unaffected, although, as a rule, it is smaller than usual. The urine itself frequently is turbid and contains many bacteria and a large amount of phosphates; in fact, *phosphaturia is one of the most common symptoms in prostatitis*. Whether it is a direct result of the prostatitis or whether it is caused by the nervous condition induced by the prostatitis is an open question.

The *sexual* symptoms are briefly summarized in imperfect erections and premature ejaculations. The libido may be diminished, but, as is so often the case whenever any irritative condition exists in the prostate gland, it may be greatly increased, causing the patient to indulge to excess and thus still further to aggravate his condition.

The *general* and the *nervous* symptoms produced by an irritated or inflamed prostate gland are literally legion. At first there is a general irritability, a physical and psychic irritability. The patient responds much more quickly to external stimuli, such as changes in temperature, and he gets very easily upset over little things. Then there occurs a general depression. This depression expresses itself, not merely in a lack of desire for work and a lack of interest for things, but in a general despondency. The patient may occasionally become deeply melancholic, and this to such an extent that he may harbor suicidal ideas. If the condition lasts long, he may become a victim of sexual neurasthenia, with its legion of symptoms.

Other symptoms will be found described in my articles that appeared in the January and February issues of CLINICAL MEDICINE.

As to the Treatment

While prostatitis, as we have seen, may be a serious complication, giving rise to numerous annoying symptoms that make the patient wretched, diminish or destroy his usefulness, and may even lead him to suicide, there is one bright feature about it, and that is, that it is very amenable to treatment.

While we may not change the secretion in a suppurating prostatitis to such a degree that it does not contain a single pus-cell, still, practically all cases of prostatitis may be improved to such an extent that they will produce no symptoms, so that the patient will not be aware of its existence.

The treatment of prostatitis, as of all diseases of the genitourinary organs, is both general and local. The patient must guard against constipation. The diet must be bland, strong spices and condiments being eschewed; alcoholics must be reduced to a minimum; and everything possible must be done to raise the general condition of the patient from below par to par or above par. Cool baths and douches are useful for the general system, but hot sitz-baths are necessary for the prostatic condition. It goes without saying that any pathological condition in the urethra, such as a posterior urethritis, or a stricture, or colliculitis, or seminal vesiculitis, must be treated concomitantly.

Prostatic Massage

There is one measure, however, which is more important in the treatment of chronic prostatitis than all other measures combined, and that is massage of the prostate gland. It is quite remarkable what rapidly beneficial effect a massage of the prostate gland will produce on the patient's condition, both local and general. It constitutes one of the most gratifying methods of treatment in the venereal specialist's work.

Without the patient being told what the massage was for, what it was expected to accomplish, he will either at once or at the next visit volunteer the statement that he felt better immediately, that not only did he feel an improvement within the rectum and perineum, but he felt generally better. In fact, even a mere examination of the prostate gland, in which you sweep the finger around the gland to determine its contour, size, and consistency, and in which you do hardly any expression, produces a beneficial effect. There is no exaggeration in saying that the effect of prostatic massage is often simply marvelous.

The Technic of Massage.—The way to perform massage properly and effectively is, to have the patient, standing with his legs well apart, bend over a chair or the examining table, firmly supporting himself with both hands. The index-finger of the gloved hand, over which an extra finger-cot may be put on, well anointed with petrolatum (for rectal examinations I prefer petrolatum to the water-soluble lubricants), is introduced gently into the rectum, and the prostate gland is gently but firmly massaged, first from the right side toward the median line, then from the left side toward the median line, then a few firm pressing strokes are made from above downward. Special pressure is applied to any indurations that may be encountered or to any specially soft spots.

When the massage is completed, the patient is told to get up gradually and slowly from his stooping position, and then is given a glass to urinate in. The urine washes away the prostatic secretion.

This is for ordinary cases, in which there is little discharge, and that chiefly catarrhal. But, where there is much discharge and of a purulent character, it is best to have the patient urinate first, then to fill his bladder with a 2-percent boric-acid solution, then massage him, then tell him to urinate, and after he has urinated it is well to instill into the bladder a dram or two of a 1 : 1000 solution of silver nitrate, depositing a few drops of the same solution throughout the course of the urethra. This is, to prevent any infection from the prostatic secretion.

Massage in the Horizontal Position.—Some physicians perform prostatic massage with the patient lying on his back or even on his side. I am opposed to this position, because it is much more unsatisfactory than the standing-stooping position. The finger can never reach quite as far with the patient lying down as with the patient standing up and pushing his prostate gland against the finger. Nor can the physician's finger ever get such a leverage with the patient in the horizontal position as when the patient is standing.

For the mere purpose of examination, the recumbent position may be sufficient, and when the patient is of an extremely nervous temperament and subject to fainting spells, that position must sometimes be chosen; but it is never the position of choice, and we can never be sure of giving the patient a thoroughly satisfactory massage in that position. Another point, perhaps not of so much importance, but still of some importance, is, that when the patient is stooping down the secretion, through gravity, has a tendency to run out of the urethra; in the recumbent position, it is sure to flow back into the bladder.

Abuse of Prostatic Massage

There is no therapeutic procedure, beneficent as it may be, that cannot be abused or overdone. This is true of massage. Useful as it is, much damage may be done by it if it is performed too brutally or too frequently.

There must never be a digging of the fingertips into the prostate gland; there must be only a pressure with the entire palmar surface

f the finger. Too much force must not be used, or the inflammation instead of being allayed may be increased in severity or even necrosis may be caused. Nor must the massage be performed too frequently. But here no dogmatic statement can be made as to what constitutes frequency: some patients can stand massage every other day, some only once a week or once in ten days.

Massage must not be performed when there is acute inflammation in the prostate gland or an acute exacerbation of a chronic inflammation.

Besides the aggravation in the condition of the prostate gland itself that the too frequently or too brutally performed massage may cause, it may also cause an epididymitis, a seminal vesiculitis, and even sciatica. Not too much zeal in the best of causes!

A Few Minor Points

1. Some patients come to the office with full recta, the feces pressing on the prostate gland. This makes it unpleasant for the physician, for it not only occasionally interferes with the proper performance of the massage, but it induces in the patient a desire to defecate. Such patients should be told always to empty their bowels before coming to the physician's office. If they cannot do it spontaneously, they should take an enema.

2. Where the secretion from the prostate gland is so profuse as to run from the urethra, the patient is instructed to support himself with one hand only, holding in the other hand a small glass under the penis to catch the secretion.

3. Be on your guard and watch your patient very carefully when giving him the first massage, for some patients faint after the first massage. Let the patient get up from his stooping position very slowly, make sure that he is not pale, and that he has no sensation of fainting. If he complains of a sense of weakness, the best thing is, to lay him down on the examining-table or couch for a few minutes. Some sensitive patients are apt to vomit profusely.

4. In some obstinate cases of prostatitis, I have found the introduction of a potassium-iodide and iodine suppository, followed by a gentle massage for five to seven minutes, very beneficial. The massaging apparently causes a much greater absorption of the potassium iodide and iodine than will the mere introduction of the suppository.

Intravenous Medication

When and How Employed

By W. N. Fowler, M. D., Kalamazoo, Michigan

WHETHER medical nihilism or the present craze for surgical procedures has been the incentive to increased interest in intravenous medication does not particularly matter, for, certain it is that the growing interest in this method of administering drugs will be able to hold its own, because of the prompt results and many other advantages accruing, not only to the patient, but to the physician as well. The danger associated with this procedure has been largely overestimated, and the older teachings about "air in the vein" and its untoward effects can be disproved without effort.

It is not my intention to discuss the chemistry of the body or the solutions that have been administered through the blood stream. The number of drugs that are being administered in this way is comparatively large and is steadily growing. Almost the first one so to be used was sodium salicylate with its combinations, for rheumatism in its various forms. This remedy, combined with caffeine, is being used very successfully in acute and subacute conditions. It has been combined with colchicine with remarkable success; still, care must be exercised in the administration of this combination, although the results warrant its use in many cases.

Sodium Salicylate in Tuberculosis and Rheumatism

Sodium salicylate combined with guaiacol has been used in rather large doses in quite a variety of chronic ailments and at one time was heralded as a successful remedy for tuberculous conditions. We are not hearing so much of it lately, since some unpleasant and alarming experiences with the large doses have made physicians more cautious.

Rheumatism is a condition caused by non-neutralized acid poisons of protein metabolism, and sodium salicylate was thought at one time to be a specific; but the truth of

Filling the syringe.

the matter is, we can have no specifics, because of the wide variations of the constitutional conditions of our patients. Anything that will restore normal resistance and metabolism is a specific for that condition in this particular patient, but not so in his brother, who fails to respond to the same treatment for apparently the same condition.

Iron and Other Reconstructives

Iron, sodium, potassium, calcium, magnesium, phosphorus, and creosote in various combinations have been used for diverse conditions, including anemia, neurasthenia, skin diseases, pretuberculous conditions, and exhaustion following protracted illness. It is surprising how quickly these patients respond to the iron and phosphorus solution.

Some Uses of Mercury Intravenously

In the early manifestations of syphilis, also in septic infections, mercury has been remarkably satisfactory, and Doctor Hanor, Doctor Jones, and a French physician (whose name I cannot recall) report very prompt results in cases of chronic malaria. Doctor Hanor writes me as follows:

"After receiving your suggestion relative to the case of chronic malaria that failed to respond to the 10-grain doses of quinine and urea bimuriate, I gave the patient 1-40 grain of mercuric chloride. The patient showed improvement after the first injection, and his temperature soon became normal; the symptoms are all clearing up and the blood stream shows no malarial parasites. An Indianapolis physician reports a very interesting case of malarial infection complicated with a gonorrheal rheumatism. He thanks me for my suggestion and adds: 'I am giving mercuric chloride, 1-30 grain in the solution, every third day, and my patient looks and feels like another person after having received but two treatments.' A case of sepsis following an abortion cleared up promptly after two injections twelve hours apart."

Mercury has always been a valuable remedy, but the prompt action, without danger of salivation, enhances its value many times.

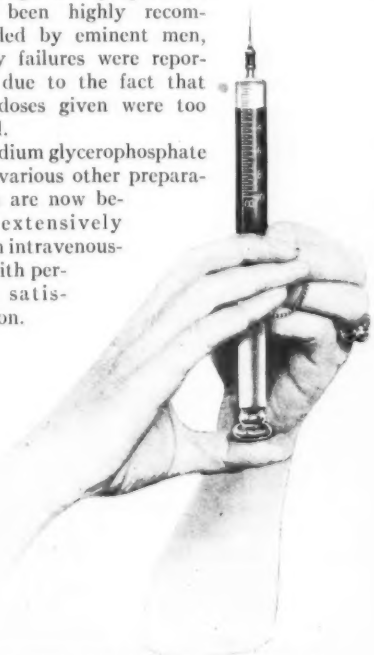
Iodine is another remedy that has produced some brilliant results, as well as failures, through the intravenous route.

Sodium Cacodylate

Cacodylate of sodium (organic arsenic), contains 48.6 percent of arsenic, equivalent to 61.8 percent of arsenous oxide.

Since the European war, the difficulty of obtaining Ehrlich's preparations has revived the interest in the cacodylate of sodium. Although this preparation had been highly recommended by eminent men, many failures were reported, due to the fact that the doses given were too small.

Sodium glycerophosphate and various other preparations are now being extensively given intravenously, with perfect satisfaction.



Proper position of the syringe in expelling the air.

Distending the vein after the needle is inserted.

The fact that hundreds of physicians are administering remedies by the intravenous route does not mean that it has no danger. Thousands of men are opening abdomens every day, but you would not say there is no danger. The utmost care must be taken for this simple procedure, the same as for opening the abdomen. Cleanliness and godliness are near relatives, and dirt and the devil go hand in hand. No physician who is not clean in his personality and habits has any business with the scalpel or the intravenous needle. The blood stream will not tolerate dirt without making a fuss.

If you want to take up the intravenous treatment, *be clean*. Never undertake a treatment without boiling your syringe and needle. Cleanse the patient's arm over the area to be treated with soap and water and alcohol. Always keep your solutions tightly closed and away from dust and light, so as to prevent deterioration.

There is considerable variation in the technic of intravenous treatment. If one has a hospital where he can keep the patient under observation, it is a much more impressive procedure to use the neosalvarsan gravity-apparatus and a 17-needle; to dissect out and ligate the vein, and to use a larger amount of solution; but this procedure is entirely unnecessary.

I give the treatments mostly in my office. There is absolutely no disturbance locally or constitutionally, except very rarely a slight degree of vertigo for a moment or two.

Now for the Details

My technic usually is as follows: I use Luer syringes, the 5-, 10-, and 20-Cc. sizes, and occasionally an Underwood pressure-apparatus. I use platinum or platinum-alloy needles, 27 generally, occasionally a 26. Either does nicely. The needles and syringes, with plungers removed, are boiled for two minutes; then pour off the water, and, while still hot, affix the needle and pour the solution into the syringe; then place the plunger into the opening of the syringe and invert. Thus, in pushing the plunger into the barrel, the air is forced upward and out through the needle. Now place syringe back into the dish in which it was boiled, until it is to be used. (I use a shallow enamel stewpan with handle and cover.)

Place the patient in a good light, either sitting or reclining. Cleanse the arm over the location of the median basilic vein, though any vein that shows prominently may be selected. Place a constriction (a napkin or a rubber constrictor) above the site of injection. Take the syringe in the left hand, expel the air with the right hand (unless you are left handed), hold the skin steady over the vein, then, with a firm, unhesitating pressure, push the needle through

Injecting the fluid after removing constriction.

the skin and vein-wall, using care not to thrust the needle through the posterior wall of the vessel. A little experience will enable you to tell when the needle passes into the lumen of the vein.

You can determine positively that the needle is within the vein by withdrawing the plunger slightly, when the blood will be seen coming back into the lumen of the syringe just back of the needle; but, if the light is not the best, you can see the blood more easily by slipping a piece of white paper between the patient's arm and the barrel of the syringe.

Be very careful not to inject the solution into the tissues. All intravenous solutions must be alkaline, and alkalis in the tissues make trouble and bad sloughs, which are slow to heal; and that hurts your reputation as a skilful operator. If you fail to place your needle properly, your patient will complain of its hurting—not always a pain, but an indefinite aching. Always readjust your needle, and be sure you are right before you push the plunger down.

You should hold your needle at an angle of about 20 degrees from the forearm, and, after making sure the point of the needle is properly located, push the plunger down slowly. I usually take about two or three minutes for 10 Cc. of solution, more of less, in the same proportion.

The injection of the solution should be painless and there should be no after-disturbances, although quite often a reaction is experienced from the large doses of salicylates. These patients should be kept in bed until the reaction is over.

Many physicians attempt intravenous medication in a half-fearful fractional dose-way and they say they get no results, which doubtless is true. At the same time it refutes the often-made statement that the effect of this method is purely psychic. But the physician who studies his cases and the solutions he uses, realizes that he gets results well worth the effort.

Nonoperative Gynecology

By William Rittenhouse, M. D., Chicago, Illinois

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EDITORIAL NOTE.—This is the first of a series of articles upon nonoperative gynecology promised us by Doctor Rittenhouse. This is a topic in which we know a great many of our readers are interested, since we have frequently had requests for papers upon this subject. Doctor Rittenhouse will be glad to answer any questions, and we hope that the series may bring out a good many comments.

THE editor of Clinical Medicine has repeatedly requested me to contribute a few leaves from my experience in office-gynecology; and he always emphasized the idea that it should be something practical—not necessarily something extraordinary, but especially embodying my own methods of dealing with the ordinary ills of the reproductive system, for which women seek relief in the doctor's office. At first sight this subject seemed so commonplace that the readers of this journal must surely be as well informed upon it as I. After reflecting, however, three considerations occurred to me that finally induced me to write.

The first consideration was, the hunger shown by the students in my classes for every bit of practical information of this nature, and which, incidentally, might be introduced in my lectures on obstetrics. Not only have they always noted with eagerness any information on this subject, but they have almost constantly plied me with questions regarding it, expressing at the same time their sense of the inadequacy of the help they could obtain from textbooks.

The second consideration was, my recollection of the sources from which I myself gathered most of the practical knowledge which I possess. These were not mainly classical sources, such as textbooks, or scientific papers read before the big societies, but personal experiences gathered from the rank and file of my fellow practitioners in their daily work. For twenty years I have been a member of a club of twenty-five doctors who live reasonably near each other and meet once a month at each other's house. At these meetings, we always discuss from the standpoint of our own experience some subject of practical value selected anywhere from the whole field of medical science. It is the general testimony of our members that we get more practical ideas on our work from this little club than from all the other societies to which we belong. It is the

touchstone of personal experience that transmutes this knowledge into the fine gold of practical usefulness. I often think that possibly in our medical teaching of today we may be giving too much attention to the extraordinary, and not enough to the ordinary.

My third excuse for this series of articles is the considerable number of gynecological patients who drift from one doctor to another without having obtained the relief they sought. While some of these are hypochondriacs and are only happy when drifting, nevertheless there are too many who have failed to get well because of faulty diagnosis or wrong treatment. No doubt I have unwittingly contributed my share to this unhappy army of sufferers; but I feel that with a freer exchange of experiences we might all do better work. If my experience happens to prove of value to others, I shall be glad, but I shall be more gratified still if these articles bring out from the readers of this journal suggestions of their own which I feel certain are capable of opening a mine of unsuspected richness.

How Good Things Are Discovered

Most doctors could, no doubt, recall instances like the following. I was consulted by a married woman who had not menstruated for over nine months. She was very fleshy and her doctor had too readily accepted her own diagnosis of pregnancy. When the little stranger failed to appear on schedule time, her doctor took her to a gynecologist of large experience, who confirmed the diagnosis of pregnancy but set the date of delivery further ahead. Dissatisfied, she came to me. I made certain that the woman was not pregnant at all, and suggested to her physician a line of treatment which soon restored her normal functions. Two years later, she came to me again, stating that she was having the same experience as before, that her periods had been suspended for many months, and that her doctor had used the same line of treatment which I had suggested two years previously, but this time without success. After an examination, I said to her, "you will have a baby inside of two weeks!" and she did.

Another example: I was consulted by a young woman two years married, who, during that time had suffered intensely from dyspareunia and was approaching a condition of complete nervous breakdown. In the city where she lived, she had been treated unsuccessfully by her physician and finally had been taken to a hospital and had both ovaries removed—at least, so she was informed. She had a laparotomy-scar, but the ovariotomy could not have been complete, for she became pregnant later. After the operation, she had grown worse instead of better. I found the cause of her dyspareunia, namely, a large and intensely sensitive urethral caruncle, Its removal, followed by appropriate treatment, entirely cured her dyspareunia in less than a month. By the way, the surgeon got $200 for the laparotomy; I got $25 for curing her. That was all she had left.

But I need not multiply instances. I merely wished to emphasize the fact that slovenly diagnoses are deplorably frequent. and perfunctory routine methods of treatment equally so.

Before proceeding to the consideration of individual conditions and their treatment, I want to say a word about diagnosis and methods of examination.

Concerning Diagnosis

There are some men who seem to have a genius for diagnosis. They seem to see what ails the patient by instinct. The apparent ease and certainty with which they do this is sometimes quite discouraging to us ordinary mortals, especially in our early years of practice. Someone has said that genius is merely the capacity for taking infinite pains. While this may not be literally true, it nevertheless contains a great truth. The beginner who looks enviously at the skill shown by the trained diagnostician has it in his power to reach in time the same envied accomplishment. But he must remember that success can only come by patient observation, system, thoroughness, and everlasting perseverance. The way to learn how to do a thing is, to do it—and keep on doing it. And then all this must be vivified by breadth of view. The narrow man will never become a good diagnostician. He is unable to rise above rules. Rules are good servants, but bad masters. Only through the trained judgment can real broad-mindedness be acquired.

Confidence in one's self is another requisite in making a good diagnostician. If I may be permitted to make a personal confession, I will say that it was only after I began to have some consultation-practice that I began to do my best work in diagnosis. The fact that others had confidence in me gave me confidence in myself, and my work improved accordingly. One should always keep before one's mind the resolution, "What others have learned to do I can learn to do."

I referred above to the necessity of the examiner exercising observation, system, thoroughness, and perseverance. These qualities are all indispensable, and it would be difficult to say which one is the most important.

The average human being is a poor observer and, so, most of us are compelled to acquire the art of observation by training. This training ought to be largely acquired in medical college, but the modern course is so crowded with things which the student is expected to memorize that he has little time for real training of his powers of observation. It would be of great value to every student if he could have a thorough course in some one of the natural sciences—botany, for instance—just for the purpose of developing his observing powers. So true is this that the doctor who, as a matter of recreation, takes up the study of botany or geology or entomology finds himself well repaid by becoming a better observer, to say nothing of the benefit to health gained by outdoor study.

System, too, is of the utmost importance in examination. From lack of system, the examiner often finds that he has omitted or overlooked something that was very important for him to know. The use of a system does not necessarily imply the use of a case-record—a printed form with a long list of questions. Those who like this method no doubt derive benefit from it, and I am free to admit that it has some advantages. But it has never proved quite satisfactory in my hands. When one has to get through a crowded office-hour on schedule-time, I prefer to get at the salient points of a case by a few incisive, well-selected questions, to make a few important notes, and then proceed to a thorough physical examination. In this matter, as in some others, I have, during the past thirty years, revised my methods in the direction of greater simplicity, with benefit to myself and with no loss to my patients.

Thoroughness in physical examination is, of course, so essential that no argument need be wasted upon its importance. But the need of thoroughness is no excuse for the brutal roughness of some doctors. Men of a certain mental caliber profess to believe in a philosophy which they express as follows: "The more you hurt them, the better they like you." This bit of wisdom (?) is about on a level with that formula occasionally heard from the laity regarding a doctor who drinks: "Doctor A. drunk knows more than the other doctors sober."

To be kind and considerate, to avoid inflicting unnecessary pain, to show due consideration for a patient's feeling of delicacy, these things pay in dollars and cents, even if we ignore higher motives.

In this series of articles, I shall not attempt to present an exhaustive survey of the whole field of gynecology, but shall simply select such ailments or such methods of treatment as seem to possess decided interest.

Endocervical Catarrh

One of the commonest conditions met by the gynecologist is that of catarrh of the cervix, often called "ulceration" even when no true ulcer exists. This condition is met with at all ages, in the single as well as the married, in nulliparæ and in multiparæ. In women who have borne children, it is often the result of laceration of the cervix and the accompanying eversion. The lips of the torn cervix are widely gaping, exposing the interior of the cervical canal, which has an eroded appearance, with an intensely catarrhal condition of the muciparous glands.

Where there has been no cervical laceration, we have a similar condition, but less intense; although, if the condition is of long standing, there may be erosion around the external os, even to the extent of true ulceration. The marked characteristic which all these cases have in common is, the mass of tough, thick, ropy mucus that fills the cervical canal and adheres so firmly to its walls as to defy all ordinary efforts for its removal.

Catarrh of the cervix is generally regarded as a symptom of some other and deeper-lying pathologic condition, but we often see cases where no cause can be found and where successful treatment leaves the patient perfectly well. Possibly in such cases the catarrh was caused by a temporary condition, which recovered spontaneously while the catarrh persisted. An abortion or a uterine misplacement I believe will often start a catarrh that may persist long after the original condition has gotten well.

Among the commonest causes of endocervicitis are: uterine misplacements of every kind, all sorts of infections, including those resulting from attempts at abortion, subinvolution following parturition or abortion, and so forth.

The symptoms vary greatly. In some cases, there is backache or general pelvic discomfort. In others, the symptons are almost *nil*, and the only thing that brings the patient to seek relief is, the nconvenience of a more or less offensive vaginal discharge.

The diagnosis presents no difficulties. The characteristic plug of mucus protruding from the os is easily recognized. If a lacerated cervix exists, the examiner should not fail to recognize it, for he cannot hope for a cure without repairing the lesion. Failure to recognize this condition is a diagnostic error which occurs oftener than it should.

The Treatment of Endocervical Catarrh

The reason why I have selected catarrh of the cervix for first discussion is, aside from its frequency, the fact that in my early experience it was one of my most difficult problems, a most intractable condition, while now it is one of the most manageable. The difference lies in the use of common tincture of iron. Since I have learned the effectiveness of this simple remedy it has been a constant source of wonder to me why so few gynecologists use it. While it is one of the remedies for this condition mentioned in the textbooks of twenty-five years ago, its true value does not seem to have been appreciated.

The real problem in treating endocervical catarrh is two-fold: first, thoroughly to remove the tough cervical mucus, and, second, to make an application to the diseased surface that will control the catarrh.

Various methods have been suggested for removing the mucus. If it is not thoroughly removed, the remedy applied will be ineffective. The most common method is, to attempt to suck it out by means of a long-nozzled syringe. But the removal is imperfect and it is not an easy matter to keep such a syringe clean and aseptic.

The tincture of iron solves the problem to perfection, provided certain simple precautions are observed. One danger is, to use too much, and so cause unnecessary pain. Another point is, to allow a minute or two for coagulation to take place.

A bivalve vaginal speculum is introduced. A cylindrical one will do, but affords less room. With a wisp of cotton in the dressing-forceps the parts are wiped as dry as possible, so as to avoid having the iron solution run where it is not wanted. Then a bit of cotton is wound on the end of a probe, not brush-shaped, but cocoon-shaped, very snug and firm, and not too large. These little details are important, as experience will soon show. The cotton is dipped into tincture of iron, the surplus carefully removed so it will not run, and then the application is made inside of the canal being careful not to go through the os internum, as a bit of the iron getting into the uterus would cause severe pain—uterine colic. The application should be rubbed against the inner wall of the cervical canal for a few seconds and then withdrawn. After waiting a minute or so for coagulation to take place, the probe is again used, this time with dry cotton. The mucus is now in curds and can easily be removed, leaving the canal clean and dry if the amount of iron used has been correctly gaged. Any other desired remedy may be applied to the catarrhal surface, of course, but I have found that in many cases this is not needed. The iron not only helps to clean the canal, but is one of the best curative applications we possess.

Formerly I thought it necessary to follow the removal of the mucus with a swabbing of tincture of iodine and the placing of a vaginal tampon of cotton soaked in glycerin; but I find that most of my cases improve just as rapidly on the iron alone. As stated above, my tendency is toward simplicity of treatment. Where there is noticeable enlargement of the cervix, or subinvolution exists, it is well to apply the iodine and place a glycerin tampon, and also to order daily douches of large quantities of hot water. The patient should be instructed to use the water quite hot and have it flow very slowly.

In those cases where laceration of the cervix exists, the above treatment should be used for a time to put the parts in good condition for a trachelorrhaphy. It is not difficult to get improvement, but it will only be temporary if the tear is not repaired.

When I consider the formidable list of powerful caustics that have been recommended for the treatment of endocervical catarrh and the instruments that have been devised for the same object, I am inclined to marvel that this simple and successful iron treatment is so little known and appreciated.

(*To be continued*)

The Abuse of Surgery

The Cataphoric Use of Thiosinamin in Gynecology

By Frank B. Patterson, M. D., Marshall, Michigan

A FEW decades ago, before medical science had made the progress that it has in recent years, and with the consequent development of various specialties, any medical graduate was considered competent, not only to prescribe for the sick such drugs as were indicated, but also to perform any necessary surgical operation. The technic of general surgical work is, as a rule, simple and, if economic conditions were the same now as then, the family physician would still be using every means at his disposal for curing his patients.

Now all this has changed, therapeutic nihilism being most rampant and operations altogether too fashionable; and such people as are unwilling to undergo surgical operations, and fail to get relief at the hands of the family physician, are driven to the quacks. It is, indeed, surprising, nowadays, from what a physician observes during consultation, how little, in fact, the average doctor really knows about the physiological action of drugs. Some even go so far as to boast that they can get along with only a very few drugs, overlooking the fact that of several remedies having very nearly the same physiological action no two really are identical in effects: for there are many fine shades of action that the true therapeutist appreciates, but which the rank and file of the profession carelessly overlook. One ought not even to confine himself entirely to one school of medicine; for, though he may have been educated as a regular physician, it is a serious mistake to overlook the good things offered in the materia medica of the eclectic and homeopathic schools.

Nowadays, if the family physician can possibly find some excuse for so doing, he rushes a patient to some hospital for an operation. The surgeon, of course, does not dispute the diagnosis of the family physician, as it is against his principles to turn down a big fee; and, thus, many operations are performed, the unnecessary as well as the necessary. It is, as we all know, a noteworthy fact that many a healthy appendix has been removed and that tubes and ovaries have been sacrificed galore.

Instructions in Therapy at Fault

Why has the modern physician thus lost his individuality, especially in an age like this, when medical science is progressing by leaps and bounds?

Looking back upon our college-days, we can see that in the light of present-day needs too little attention was devoted to the subject of materia medica and therapeutics, and that, of what time was given to that subject, there was a disproportionately large amount spent on the botany and pharmacology and not enough on the actual relation of the drugs to the disease-conditions which they were intended to combat. Also in the textbook and clinical instruction, in the practice of medicine, the students' attention was devoted mostly to diagnosis and pathology, while treatment was hurriedly passed by, with too much stress placed on authority. Consequently much misinformation was imparted that later had to be unlearned in actual practice.

With this crude and confused instruction in therapeutics, is it any wonder, then, that the proprietary-medicine manufacturers get in their deadly work, causing, as they do, many an otherwise promising physician to degenerate into a mere distributor of quack nostrums?

One of the most important reasons why surgery offers so much more alluring a field than does medicine is, the great discrepancy in the fees paid for work in these two branches of the profession. Moreover, though medical fees vary greatly in different portions of the country, surgical fees everywhere remain on the same high level. If one is in the profession—as unfortunately too many are—for merely what he can get out of it, and medical fees continue to remain so low, is it any wonder, then, that so few try to keep abreast of the times so far as their medical cases are concerned? For, the better a therapeutist a physician is, the more quickly he cures his cases, thereby making fewer professional visits and consequently receiving less remuneration; present conditions thus place a premium on incompetence and inefficiency.

Now let us take a hasty glance at the surgical aspect of the situation. Many a doctor with combined surgical and commercial aspirations secures a private dwelling in some small town and fits it up for a hospital, offering general practitioners commissions on surgical cases sent by them to his institution. On the surface, that seems only fair for the

surgeon, whether he be a city celebrity or one located in a smaller place, thus to divide his fee with the family physician, especially when medical fees are so contemptibly small as compared with large surgical fees that must be forthcoming before the patient goes onto the table. But, when in consequence of this division of the fee the element of graft enters the entire profession and many needless operations are performed and public sentiment is worked up to the point of actually considering it a distinction to have been operated upon, then this division of the surgical fee should be considered in its own true light, along with abortions, as a criminal traffic in human life.

Thiosinamin Cataphoresis for Cervical Scars

The long train of symptoms and conditions of chronic invalidism in women, due to a lacerated cervix, is well known to the profession. Up till about four years ago, I used to resort to trachelorrhaphy as a means of cure and became quite proficient in the performance of that operation. Of late years, however, I have been resorting to a better and safer line of treatment, so far as the patient is concerned; namely, thiosinamin administered cataphoretically. This method has the advantage over surgery, in that the cicatricial tissue is completely absorbed, rendering the cervix soft and pliable and thus reducing the danger of relaceration, at the next confinement, to a minimum.

In trachelorrhaphy, although the cicatricial tissue is trimmed out with curved scissors, still, no matter how good a job is done in the coaptation of the denuded surfaces, more cicatricial tissue—though less in amount than that removed—is unavoidably formed in the operative wound; and this is subject to a very severe strain during labor, while being less able to resist than is normal tissue.

The better and safer method of thiosinamin cataphoresis has the serious disadvantage, however, that it requires a course of treatments covering a period of about three months, the patient taking two treatments a week, except during menstruation, till altogether from 18 to 30 treatments are taken, as determined by the severity of the laceration and the strength of current tolerated. She is not detained from her usual duties, except that immediately following a treatment she must keep off her feet for a few hours.

How the Method Acts

Thiosinamin, being electropositive, is given off from the positive pole of the galvanic current and, in seeking the negative pole, passes through the cicatricial tissue of the affected parts, which it disintegrates. As salts of copper or other corrodable metal, are given off from the positive pole if an electrode of such a metal to that pole is used, the electrode here should be of platinum.

To this pole, absorbent cotton wet with a solution of thiosinamin, made as follows, is applied: Glycerin, fl. drs. 2; distilled water, fl. drs. 6; thiosinamin, grs. 40; sodium chloride, grs. 5. The glycerin is added to render the thiosinamin more soluble in water, while the alcoholic solution would interfere with its diffusion by means of the electric current. [There is a standard solution of thiosinamin on the market containing antipyrin in glycerino-aqueous solution, which seems to meet the condition admirably.—ED.]

With the above solution applied to the cervix on a platinum electrode attached to the positive pole, a large copper pad electrode is applied to the negative pole and placed on the abdomen or on some other indifferent part of the body, then the current is gradually turned on until it registers from 15 to 30 milliamperes, according to the tolerance of the patient, and is continued for ten minutes. If there is also an adherent displacement of the uterus, the same treatment is likewise applied for the same length of time to the vault of the vagina. Following the galvanic current, the faradic current, with about thirty interruptions per minute and of a strength not sufficient to be uncomfortable, is applied to the affected parts for about five minutes, the object being to stimulate the circulation and carry away the disintegrated cicatricial tissue.

Two Cases

Some years ago I had on hand at the same time two parallel cases of laceration of the cervix with adherent posterior displacement. One of these patients stayed by me three months and was cured, but the other had a hysterical spell, sent for another doctor, who soon took her to some surgeon for an operation, and in a few days she was brought back in her casket. Likewise recently I had two other parallel cases of like nature, the one remaining by me till cured, while the other passed through some other physician's hands to a surgeon in a neighboring town. A bungling operation was performed, and a few months later the patient came back for another, which finished her earthly career.

It is not my purpose to decry the legitimate use of surgery, but simply its abuse. If

there were no financial incentive for physicians to refer cases to surgeons, it goes without saying that there would be fewer cases thus referred. Also, if every sudden death after an operation were subject to a coroner's inquest, surgeons would be more careful to be absolutely certain concerning its necessity before performing any operation.

However, under present conditions, there is all the incentive in the world to operate and no inducement other than the patient's welfare to devise other and safer means where the necessity of an operation is not obvious. Had I referred cases such as above mentioned to some operator, I should have avoided the responsibility of performing the operation myself and at the same time saved myself the exasperation involved in a long course of treatment, such as a patient's being negligent about observing appointments or of taking a few treatments and discontinuing. I would simply have had to take my patient to the hospital and have had my commission in my pocket before leaving, and would have had at the start as much as I finally did receive after a long course of treatments.

Take it as a whole, one cannot really blame a physician who takes this course, gets his money at the start and saves himself a great deal of annoyance. The fault is not with the physician who does so, but with the system which permits him to. It is not with surgery, where legitimately employed, but with the graft in surgery. If severe penalties were imposed upon the giving and receiving of commissions on surgical cases, there would also be less incentive for entering the medical profession, as the surgical field would be greatly contracted. Also, there would be much more incentive for followers of the medical profession to become more proficient in the therapeutic art, which is now rather undervalued. In other words, there would be fewer and better physicians.

Alcohol: Its Influence Upon Mind and Body

The Doctor's Verdict

By Edwin F. Bowers, M. D., New York City

Author of "Side-Stepping Ill Health" and "Alcohol, Its Influence on Mind and Body"

IS ALCOHOL a stimulant or not? Has it any right to be classed as a medicine, as many conscientious physicians assert, and, if so, what right? These are questions that have puzzled scientists, and split asunder the camps of the learned.

It must be admitted that the almost universal belief of humankind—including many doctors—that a "good drink" is a "bracer," sows the seed for a powerful mental suggestion in that direction. In other words, the psychological stimulant influence exerted by alcohol upon one dangerously ill might on occasion weigh the scales of life in such a one's favor. But, if this patient had the same faith—as many have—in an amulet, in pills made of bread, or in any other inert and innocuous substance or treatment, he would derive from it the same or even greater benefits. At least, he would suffer from them no reaction, such as follows the use of the narcotic drug alcohol.

Usefulness of Alcohol Disproved

However, there is no longer any excuse for giving alcohol as a medicine or as a stimulant. For, apart from its temporary reflex action, due to its irritating effect upon the delicate mucous-membrane lining of the stomach, alcohol, if it has any action at all, is a depressant.

Alcohol, given in diluted form, so as to avoid excitation by direct irritation, has been repeatedly given to dogs and men, without causing the slightest appreciable beneficial effects upon the heart's action or the circulation. Given in concentrated form, alcohol quickens the heart's action in perhaps a slightly more marked degree than do mustard, essential oils, and other irritants, but it falls farther afterward. The pulse pressure, which is temporarily increased immediately after the irritating reflex action of the fiery liquid, is permanently decreased. In other words, the pulse, after a momentary increase in volume, becomes smaller. So, if you want a temporary "kick," without paying too high a price in loss of energy for it, it would be far better to take a capsule of mustard or red pepper to accomplish this purpose.

The experiments which settled this complex problem are highly technical in their nature and were made under the strictest test-conditions and the use of the

plethysmograph, sphygmomanometer, and other instruments of precision for estimating and recording circulatory and blood-pressure changes. Most elaborate series of tracings have been taken—tracings that to the trained eye of the clinician are incontrovertible proof of the contentions of the experimenters.

Rise of Blood Pressure Temporary Only

Suffice for our purposes, however, to say that when moderately strong alcohol (mildly diluted whisky, brandy, etc.) was administered the local irritation of the drug produced a reflex rise in blood pressure and an acceleration of the heart's action, this reaching its highest in about one-half hour, and then it was invariably followed by a corresponding depression. When, on the other hand, whisky or alcohol (well diluted and, hence, not irritating) was employed, neither the maximum nor the minimum blood pressure showed the slightest variation that reasonably could be attributed to the action of alcohol.

Cabot concludes that, "so far as could be determined, the action of alcohol upon the circulation was *nil*," for, in none of the many experiments was there observed any marked change in the heart rate or blood pressure within one half hour of the administration of the alcohol, unless very large doses were employed. Then it was found that alcohol acted invariably as a circulatory and respiratory depressant. This depression was most marked upon those in greatest need of stimulus, as in typhoid or other septic cases. So, the more a patient needs a stimulant, the less he gets—from alcohol.

Therefore, while alcohol in concentrated form may act as an apparent circulatory stimulant, it cannot be regarded as a true tonic or stimulant, inasmuch as it decreases the heart's efficiency and lowers the pulse pressure. Alcohol has no more claim to be considered a tonic or a medicine than has oil of mustard or a red-hot potato.

So, then, the diversity of opinion among physicians concerning the value of alcohol lies in its psychic effect upon patients who are habitual users of the drug, in whom it buoys the spirits and engenders hopefulness and courage. This same effect, however, can be secured equally well by the administration of other remedies that give all the stimulating effects of alcohol on the physical organism without any of its depressing after-results.

Even the famous Professor Ewald, of Berlin, who has been widely quoted in defense of the therapeutic value of alcohol, now gives it only in certain forms of diabetes, particularly in incurable cases, in order to divert the mind of the patient from dwelling on the hopelessness of his condition. Others, under similar circumstances, might with equal propriety prescribe morphine and recommend its indiscriminate use.

The decided advantages of a nonalcoholic over an alcoholic régime in private practice and hospital-work is now quite patent to the profession at large. Indeed, it is even contended that the physician who prescribes alcohol in this era of advanced knowledge concerning alcohol and disease is unjust both to himself and his patient. And the time may not be so distant when to prescribe alcohol in sickness will be considered malpractice. For, alcohol has been proved entirely too lath-like a weapon to oppose to death when the stake is life.

Many conscientious physicians nowadays refuse to prescribe alcohol or even medicines in an alcoholic menstruum; not alone because of the evil effects of the drug upon the system, but also for fear of arousing a dormant alcoholic craving in some susceptible patient. For, not infrequently an intense desire for alcohol is flashed through deficiently resistant cells by a doctor's incautious alcohol-prescription. None can say when or where atavistic traits may flare up. A youth may have had a grandfather who was an alcoholic —so powerfully addicted that he transmitted the craving to his grandchild—jumping, as is the biological way, a sober generation, only to work sinister havoc upon the next one. The results are obvious.

The Pernicious Medicated Wines

This brings us to consider "medicated" wines, possibly the most pestiferous and pernicious insult to the intelligence of the human race that has ever been perpetrated. These almost invariably contain a relatively large percentage of alcohol, besides various other substances—such as malt, beef-extracts, pepsin, even coca-leaves, and sometimes rum. Wines that contain coca-extract have frequently been responsible for the formation of the cocaine-habit—one of the most dangerous and insidious of drug-habits and perhaps of all the most difficult to cure.

Most people who take medicated wines are honestly deceived by them, since they look upon them as medicine rather than as "booze." Some even imagine that the presence of the beef-extract, malt or iron renders the "dope" harmless; which, though, is far from true—indeed, the very opposite

is the fact. Pickling malt or beef-juices in alcohol lengthens the period required for their digestion and thereby renders them less wholesome as food—for, of course, they can have no medicinal action, as such. A few cents' worth of freshly made Blaud's pills will give far better results than a dollar-bottle of "iron tonic"—and without risking acquiring the alcohol-habit or poisoning the protoplasm with an exceedingly cheap quality of whisky.

Now, within the memory of many of us who are only slightly gray, it used to be thought that a jug of whisky, a barrel of codliver-oil, and a glad, free life in the open air constituted a sure cure for consumption. But we know better now. We know now that whisky is "bad medicine," and especially bad for lung diseases, because of its effects upon the blood-vessels, and the phagocytes, besides its lowering influence on the general resistance.

Dr. Jacques Bertillon, chief of the Bureau of Municipal Statistics in Paris, and world-renowned as the originator of the famous Bertillon system of measurement—has given it as his opinion that alcohol may well be called the principal cause of tuberculosis. Supporting this contention, he cites the mortality statistics of one hundred thousand men of all ages, which show the death rate among abstainers to be less than half that of alcohol users—21.8 percent among alcoholic patients, as against 9.9 percent among abstainers.

Alcohol and the Respiratory Organs

In a study of 500 cases of tuberculosis, the use of alcohol was followed by a 40-percent higher mortality than occurred among those receiving no alcohol. In France, similar results were observed—immoderate drinkers dying in proportion of 52.8 percent; moderate drinkers in 25 out of 100 cases; while abstainers had a mortality of only 18.5 percent.

There is no doubt that alcoholism is the barometer of tuberculosis. The International Tuberculosis Congress, meeting recently in Paris, affirmed this relationship, when it officially proclaimed the necessity of proceeding against both, if tuberculosis were to be vanquished.

Also, the poisonous effect of alcohol on the circulation causes congestion, the formation of toxins, and the retention of waste material. The extra labors placed upon the heart, in an endeavor to overcome this condition, quickly result in fatigue, and this falls most heavily upon the lungs and nerve-centers. This helps to explain also the diminished resistance of alcoholics to pneumonia, as well as to tuberculosis and other lung diseases. This latter fact was emphasized during a recent antialcoholic congress in London. A study of more than 2000 cases of pneumonia, half of which were treated with alcohol and half without, showed a mortality of 31 percent when alcoholic "stimulation" was resorted to, and only 19 percent in those in which alcohol was taboo.

In two large cities in the East studies of death from pneumonia educed the significant fact that, in patients under fifty years of age, from sixty-five to seventy percent of those mortally stricken had an alcoholic history.

And this suggests that, if singers only realized the pernicious effect of alcohol—especially upon the delicate mucous-membrane lining of their respiratory passages and "voicebox"—they would embrace it with the same ardency and joyous abandon that they would a pestilence. For, alcohol, by its hardening and toughening effect upon the squarefoot of delicate mucous membrane which the singer uses in his business, causes the outer layers of this membrane to degenerate, so as to be utterly incapable of performing normal functioning, until such time as new tissue shall have been created to replace that destroyed by the alcoholic erosion. This fact also accounts, in part, for the hoarseness and the exaggerated resonance of the "morning-after" voice. Naturally, this effect is more pronounced in those who take their whisky, cognac or brandy "neat." Still, those who dilute their "dope" or who drink mild liquors, wine or beer get the same effect, in degree.

Other Evil Results From Spirits

This is proved by the catarrhal condition of the pharynx and vocal passages that is excited by an allopathic indulgence in beer or light wines: the relaxation of the uvula, soft palate, tonsils, and fauces is most marked.

Also, it is alcohol and patent medicines containing alcohol that are largely responsible for the prevalence of catarrh of the stomach and intestines—so frequently forerunners of grave and even fatal maladies. With true Adamic effrontery, we in America have attempted to put the blame upon woman and her reputed maltreatment of food. Be it gently suggested that the intelligent middle-class American housewife plays second fiddle to no woman in the world in the skilful preparation of appetizing, digestible, and nourishing meals. But alcohol takes from

her the wherewithal with which to purchase dainty comestibles, while depriving the man of the stomach to enjoy these dishes when they are presented.

As for cerebral hemorrhage, more than 50 percent of patients dying are regular users of spirits. Also, many socalled cases of "heart failure" and sudden collapse have the same grim history.

In Munich, investigators have worked out, with true German painstaking thoroughness, the exact relation between alcohol and degeneracy. In a city where every man, woman, and child consumes a *per capita* allotment of an average of 287 pints of beer in a year, this study, naturally, is not difficult. The alcoholic content of this amount of beer is equal to 6 glasses of brandy a day for all hands. Professor Bollinger, who made autopsies on about 6000 of them, assures us that every sixteenth male in Munich dies of 'Munich beer-heart," and he adds, for our further edification, that "one rarely finds in Munich a faultless heart and a normal kidney in an adult man."

Furthermore, long experience has demonstrated that no case of rheumatism or neuritis promises a successful outcome unless alcohol be absolutely interdicted.

It Mars Woman's Beauty, Also

While not distinctly a subject of medical interest, it nevertheless may be pertinent to mention that alcohol seriously mars beauty in women. Thus, it roughens the skin and produces discolorations and pimples. By inhibiting the action of the vasomotor nerves which regulate the expansion and contraction of the blood-vessels—it causes a chronic congestion in the tiny capillaries underlying the skin; which dilation, if long enough continued, becomes permanent, because the "elastic" will have gone out of the vessels. This causes the skin to become red and flushed or in cold weather leaden or dull-purple, and produces the characteristic bulbous nose associated with alcohol drinking. Alcohol also makes the female breasts flabby, by robbing the supporting muscles of their normal vigor and tone.

And, as alcohol is responsible for much of our present-day neurasthenia, it follows that to it can properly be charged a considerable proportion of the wrinkles, crowsfeet, and haggardness of the neurasthenic. This, entirely apart from its subtle but certain effect in stamping its unmistakable stigmata upon the countenance of every woman who regularly indulges in the insidious drug.

Yet, alcohol is of undoubted value—used externally. In fevers, particularly, applied to the surface of the body, its chemical, water-absorbing, and rapid-evaporation properties give it a grateful refrigerant action. An alcoholic sponge-bath means rapid abstraction of the surface moisture of the body, with consequent diminishing temperature and relief of capillary congestion. This is the nearest that alcohol comes to being a medicine.

Alcohol Lowers Resistance

For, taken internally, alcohol is a narcotic; paralyzing, corroding or irritating every kind of tissue in the body, and the more delicate the tissue, the more pronounced the pernicious action.

Only recently it has been demonstrated that alcohol hinders the formation and the accumulation of glycogen in the liver, thus materially lessening the body's natural resistance to infection and, so, decidedly encouraging autointoxication from intestinal poisons. And the observations of Combe, Bouchard, von Norden, Bunge, and numerous other authorities have demonstrated beyond cavil the enormous role played by intestinal autointoxication both in chronic and acute disorders.

In certain kinds of work, alcohol, by breaking down resistance, renders the worker especially susceptible to disease, thereby intensifying the danger involved in the work itself. Thus, for instance, those who work with lead (as paint-makers, painters, etc.) are much more liable to lead-poisoning when drinkers than when they are abstainers, because the natural resistance of the body is lowered in trying to overcome the effects produced by the lead.

And, when the debilitating effects of the alcohol are added to the dangers of the lead, phosphorus, arsenic or what-not, the resisting forces of the body are overcome much more quickly than if only one enemy at a time is being fought.

The same principle applies also to those who are required to work in intense heat. First, because, under alcohol, the judgment is impaired and one is likely to expose himself more recklessly to the heat than he otherwise would; and, second, because his physical and his nervous resistance has been depreciated by the action of alcohol. Alcoholics, therefore, are peculiarly liable to sunstroke and heat-prostration.

Alcohol has also a pronounced and degenerating effect upon the teeth. Doctor

Floras, a pupil of the eminent von Bunge, and surgeon to the Anatolian Railway in Asia Minor, examined the teeth of 729 employees, divided into the strictly abstinent Moslems and those who had fallen into European drinking-habits.

Counting the number of decayed teeth in each class (their habits of life, except for drinking, being identical), he found that the average number of decayed teeth to each drinking workman was almost double that found in the abstinent class. In workmen between forty-six and fifty, this average rose to nearly four times as many. Professor Bunge and other physiologists have since repeatedly corroborated Doctor Floras' findings. It is also significant to note that Doctor Bunge finds a distinct decline in nursing power accompanying decay of the teeth, and he predicates both as being owing to one cause, namely, alcoholism.

So, it would almost seem, as Professor Bunge says, that, to dry up the springs of race degeneration, of which alcohol is the chief one, is a problem the solution of which admits of less delay than any other.

Authoritative Opinions

Dr. William H. Welch, ex-president of the American Medical Association, says: "Alcohol in sufficient quantities is a poison to all living organisms, both animal and vegetable." Dr. Howard A. Kelley writes: "It is clear, in the light of experience and of recent research-work, that alcohol should be classed in the list of dangerous drugs, along with morphine, cocaine, and chloral—a drug which may so affect the will-power as to gain the complete mastery over a patient and in the end destroy him. English and German physiologists have demonstrated beyond a question that the continued use of alcohol in any quantity is not only useless, but positively harmful; and, on the basis of experience, I appeal to my colleagues everywhere to abjure its use."

Dr. T. Alexander MacNichol, in one of his addresses, says: "Fifty years ago, men commonly believed that alcohol was food, tonic, and stimulant; but they were excusable for their ignorance, as little was known of the physiology and chemistry of the blood and tissues; the action of bacteria upon the functions and life of tissue-cells was a sealed book. The invention of instruments of precision and the application of more exact methods of examination have revolutionized our attitude toward alcohol. In the light of modern science, alcohol is not food, a tonic or a stimulant."

In a word, then, science has classified alcohol as a universal protoplasmic poison to all forms of organic life. And, Sir Victor Horsley remarks, "We cannot estimate what minimal amount we can safely take into our bodies and say that it will not be detrimental to our tissues."

The Society for the Study of Inebriety, concurring in the opinion of the English society, finds that alcohol has no tonic or stimulant power; that its real effects are invariably narcotic and paralyzant.

Dr. Louis D. Mason, president of the American Society for the Study of Alcohol and other Narcotics, delivered an address recently, in which he said:

"A large majority of the leading and influential practitioners of medicine and surgery in this country and Europe are excluding from their practice alcohol in any quantity and are also denouncing it in any form as a beverage. The great hospitals of Europe, on the continent, and in America and elsewhere, every scientific center reflects their action."

Dr. T. D. Crothers, of Hartford, after a lifetime's study of alcohol and its effects upon the human organism, concludes that

"The widespread use of alcohol as a beverage and the delusive theories which have grown up about it in medicine are due exclusively to its fascinating narcotic action for the relief of pain, discomfort, and suffering. It is not stimulation that is sought, but narcotism, anesthesia, and relief."

The Abolition of Drinking

So, with all these facts in mind, Health-Commissioner Goldwater, of New York City, has decided to clean up a small section of the universe by curtailing or abolishing drinking in New York. Doctor Goldwater contends that a "protoplasmic poison, lessening vital resistance, hindering the progress of the community, and fostering poverty and the diseases springing from poverty" comes properly within the scope of the activities of the health department.

So, twentieth-century expert medical testimony renders its final verdict in this:

Alcohol has no helpful function to perform for the human system, either in health or disease, as a beverage or as a medicine, under any circumstances, in any form or quantity or under any condition. It is the greatest, the most deadly, the most far-reaching, in its deleterious results, of all epidemics. There is for it no antitoxin, no vaccine—nothing but the powerful preventives of intellectual sterilization and mental sanitation.

First Aid in Injuries of the Scalp, Head and Face, and Their After-Treatment

By W. G. Brymer, M. D., Dewar, Oklahoma

THE subject of first-aid and emergency surgery and of the after-treatment of emergency injuries presents a much broader field than might appear on first thought. Unfortunately, this important subject has received but scant attention in textbook and current literature, and I intend to consider it at some length in this series of papers, laying particular stress upon the importance of the after-treatment. It may be of value not to limit my discussion to the surgical aspect, but at the same time to consider the financial and social relations of industrial injuries, because of their farreaching bearing.

Emergency surgery and first-aid work cannot be classed strictly under any of the subjects with which general surgery deals, because of the great variability and divergence of the problems presented. In any accident in which a number of men have suffered, apparently from the same causes, the injuries may be found to be of the most varied nature, and the resources of the emergency-surgeon are constantly strained to the utmost, to devise means and procedures for the suitable correction of the injuries and the attainment of the most useful results. Often the difficulties of the surgeon are aggravated by an entire absence of suitable first-aid material, so that, in consequence, the liability of the employer is increased, since an injury which by proper first-aid attention might remain a comparatively simple one will become complicated by infection through careless or ignorant handling; and not only will the damages to be paid be higher, but the ultimate usefulness and earning-power of the patient will be correspondingly diminished through the primary inefficient handling. It should be incumbent upon all industrial corporations to train their employees in the proper administration of first aid.

Lesions of the Scalp

Nearly all scalp wounds are infected, especially if caused by some blunt instrument by which the hairs are driven into the wound, while the clean cut, as a general thing, is closed automatically or by a blood clot and is not so likely to get infected. An abrasion or a contused wound is often overlooked and later becomes infected.

When you have a wound of the scalp to deal with, always be sure to give it the most careful consideration and antiseptic treatment, thoroughly cleaning it and then swabbing it freely with tincture of iodine. This is one of the best antiseptics for scalp wounds that I have ever used. It causes a rush of phagocytes to the field, which form a wall around the wound and prevent systemic infection, while, moreover, the iodine hastens repair through the production of inflammation to which it gives rise.

Large bruised wounds of the scalp should not be closed with ligatures, for trouble will surely follow. Rather cleanse the wound well with a 1 : 5000 iodine-solution or with alcohol, then apply tincture of iodine in full strength over whole surface, then cover with the sterile dressing. The results of this procedure are highly satisfactory, and you will be surprised, when you dress the wound the second time, to find that the ugly-looking sore, which you had at first, has changed to a simple wound that will give you no trouble.

On the other hand, suturing will invariably lead to suppuration and produce a bad wound. Scalp wounds heal better if they are left open.

These wounds have a tendency to heal rapidly if not infected, but, if infected, they generally prove most stubborn and are exceedingly dangerous; for, it seems that the absorption from the infected area very readily invades the blood stream and sets off a blast, so to speak, that destroys your patient's resistance very quickly. And then it requires heroic work to save his life.

In these infected cases, local antiseptics do very little good. It is necessary to supply the blood with an antiserum, in order quickly to fight the invasion of the enemy. My custom is, to inject directly into the vein a mixed serum that includes the antitetanic.

If the scalp wound penetrates through the scalp and periosteum of the skull, and the skull is fractured or mashed in, then you have on your hands another grave problem, probably concussion of the brain or blood clot and hemorrhage. In this case, invariably the patient will be comatose or, if not comatose, have paralysis of a limb or of the side opposite to that on which the trouble is located. The pulse is slow and the blood

pressure low. If the injury is frontal or occipital, the paresis of the extremity is absent, but there is always coma, low blood pressure, with reaction of the retina absent.

The first step in these cases is, to cleanse the external wound and rush the patient to the office or hospital, anesthetizing the scalp and periosteum with cocaine, 1-10 percent, and adrenalin chloride, 10 minims to 1 ounce of physiologic salt solution. Go down to the bare skull, remembering that the bone does not need anesthetizing, as it has no sensation. Trephine always. Raise the depressed portion of the skull, find the hemorrhage and the clot, remove the clot and stop the hemorrhage, again remembering that the brain-substance does not need to be anesthetized, for, like the bone, it is without sensation. Several times while I did this kind of work, the patient, after I had removed the clot and controlled the hemorrhage, became rational and talked while I was completing the work.

The main points, to which I want to call attention here, are, surgical cleanliness and ability to diagnose the trouble and its location. This can be learned from textbooks upon brain wounds, including locations and symptomatology. If you can get early to these brain-cases associated with fracture, concussion, clots, and hemorrhages, and are able to make the diagnosis, proceed. Do not wait, for, in my opinion, 90 percent of these cases end fatally for the want of early diagnosis and treatment.

If it be a clot and the hemorrhage has already ceased, haste is not important; but, how are you going to know that the hemorrhage has ceased? Look to the blood pressure and pulse. I have gone into some of these cases, alone, quickly, with local anesthesia, and have controlled the hemorrhage, with recovery of patient. Had I waited an hour, the case would have been hopeless.

Knowledge, combined with technic, will often save life where technic with procrastination means death. The emergency-surgeon must early learn to rely upon himself, and not upon his competitor. By this I do not mean that one should be overzealous to do one's work alone; but, when emergency demands, be ready and sure, then go to it. There is not a court or jury in the land but that will recognize your work.

Wounds of the Forehead

There are a few minor, but very essential, points in the surgery of scalp and face that are of importance. I refer to the repair of wounds on the forehead and eyebrows, in which bad scars can be avoided by the use of metal sutures. Stitch-sutures invariably leave their traces, but a sterile metal suture will not do so. Be sure to get the edges of the wound duly approximated and carefully apply metal clamp-sutures tightly enough to bring the cut together firmly but not too tightly; then apply a soft sterile dressing. By this method, the scars will be very slight, also the corporation will save some money, for disfigurement or ugly scars on the face or forehead will speak louder than any attorney's words of rebuttal can do.

My usual procedure is, to cleanse the wound thoroughly, swab it with tincture of iodine, apply metal sutures, and then apply a sterile dressing; dressing on the third or fourth day and removing the sutures at the second dressing, because the wound has been closed sufficiently by the serum thrown out to secure complete union. If possible, do not use water in dressing wounds. After removing the stitches, I usually apply pure tincture of iodine to the places where the teeth of the metal sutures have made their mark. Under this procedure, I seldom get a scar larger than a sewing-thread. An exception must be made in case of coal-miners, in whom a dark-blue line will be found instead of the white thread-mark scar-line. I have endeavored to overcome this, but so far without success. It is said that, if the coal-miner wants to produce positive proof of his identity as such, he will show some scar upon his body as his badge of the fraternity.

Another factor in scars of the face is their depth and length, and their direction upon a muscle. All deep scars I always close by making sutures of catgut, commencing just beneath the skin, coming out just beneath upon the opposite side and then closing the skin with the metal suture. This procedure has always proved very satisfactory. It is an advantage of metal sutures that, if a wound becomes infected, the metal stitch is easily removed and you can get to the seat of infection at once; still, if proper precautions are taken by swabbing the wound with tincture of iodine, infection will follow in less than 1 percent of cases.

I am talking about emergency-wounds that are seen within the hour, not those of several hours' standing. In over 1000 emergency-treatments done within the hour, I have seen less than 1 percent of infections. This may seem remarkable, but it is a fact. I treated 500 cases of two to three hours' duration, with

infection in 10 percent; 100 cases of from three to twenty-four hours' duration, with infection in 25 percent; and 30 cases of from twenty-four to eighty hours' duration, with 75 percent of infection.

If we use our utmost skill and knowledge, we may reduce the loss of time to the patient and corporation, also the resulting disfigurement. Remembering that the infected wound of the forehead and face will invariably leave a scar, we must give our most energetic assistance to this part of our work, in order to prevent or overcome infection and diminish the resulting disfigurement.

What the General Practitioner Can Do in the Treatment of Chronic Diseases

By George F. Butler, M. D., Kramer, Indiana
Medical Director of the Mudlavia Sanitarium

[*Continued from page 517, June issue.*]

The Physical Effects of Massage

FOR the reason that friction and motion produce heat, the physical effects of massage are thermic in character. Because of its direct irritation of the skin and vasomotor nerves, massage forces increase of arterial pressure, the necessary consequence of which is stimulation, both of the manipulated area and the parts near by; even the entire organism may be included. When, the stimulation being continued, the arterial pressure is maintained above the normal physiological level, there must eventually come a reaction which, in the form of fatigue of the muscular coat of the arteries, is coincident with depression of the heart. Then the cutaneous vessels dilate, the deeper vessels are relieved of their load and the heart is lightened.

The strong influence of massage on the circulation may be illustrated by the effects of a vigorous and prolonged manipulation of the abdominal contents. The intraabdominal vascular pressure increases, inducing such a lessening of blood pressure in the farthest-removed regions that the feet grow cold and there is intracranial anemia. Insomnia often may be relieved by this treatment.

The antipyretic action of massage is due to the fact that surface stroking raises the heat-radiating power of the skin. In the treatment of typhoid fever, the cold-rub, combining, as it does, the antipyretic virtues of hydrotherapeutic applications and massage, is practical and efficient.

Classification of Massage

Massage is usually classified, for clinical purposes, as (1) effleurage, (2) petrissage, and (3) tapotement (vibration).

1. *Effleurage* includes all those forms and varieties of manipulation which, consisting of pressure evenly applied, are continued in a definite direction. The hand, the finger or a roller instrument may be used, and, if the effect is to reach the deeper structures and not culminate in or near the skin, a lubricant may be applied. Effleurage, of course, usually is directed centripetally, in a direction opposite to that of the arterial circulation.

2. *Petrissage* is the kneading of a part between the operator's hands or fingers, or between them and some hard structure (bone) of the patient's body. The hand or instrument does not move over the skin, but remains in firm contact with it, carrying it along as it advances.

3. *Tapotement* is percussion of the tissues by slapping, pounding or beating, for which the operator's hand or a suitable instrument may be employed.

Vibration, consisting, as it does, of the administration of rapidly repeated blows of more or less severity, is a subvariety of tapotement.

Contraindications to Massage

Massage should never be administered where the skin is inflamed, broken or sore; over atheromatous blood-vessels; in painful and inflammatory states of the deep tissues; in cancer or abscess, because of the possibility of stimulating absorption and encouraging metastasis; in pregnancy; in short, whereever the benefits of manipulation would be more than offset by the local or systemic injury done.

The ability to administer massage properly is gained, first, through understanding of the principles and theory involved, and, second, by the acquirement, through practice, of great manual dexterity. *Practice* is the essential element.

The tyro should begin by taking lessons of an accomplished masseur, who should demonstrate the various methods to him. I say accomplished masseur, for he is a rare phenomenon. Of all those who pretend to have successful experience, there are few really efficient scientific operators. Like some other recent therapeutic methods, massage, legitimate and valuable as it is in various directions, has many alleged practitioners who are mere charlatans, knowing but little of the principles of the system, devoid of the necessary manual dexterity, exploiting their pretentions for mercenary gain.

Gynecological massage, the form elaborated and introduced by Thure Brandt, a Swede, for the treatment of certain gynecological conditions, is worthy of careful study. Applied to strengthen the muscular supports of the uterus, bladder, and rectum, in cases of uterine displacements, prolapsus, cystocele, and rectocele, and to break up adhesions and promote the absorption of exudation, the part to be treated is fixed by introducing the index- and the middle fingers of one hand into the vagina, while the other hand manipulates the area through the abdominal wall. According to Brandt, the contraindications are, the presence of pus and cancer. Some surgeons, whose panacea is the knife, and a number of unskilled operators who have given this form of massage without avail, object to its employment as unsatisfactory. Probably the failures are due more to bungling methods than to the principle itself, for that is certainly good. Theoretical knowledge must be backed by practice, by technical education of the fingers and hands.

Vibration

Vibration, as already explained, is but a mode of massage, consisting of a number of strokes following one another in rapid succession and setting up a tremor in a part of the patient's body that should be more or less intense. Formerly this was accomplished by means of the operator's hand or finger, some masseurs having acquired a skill in this direction that was little short of marvelous; but, since the invention of the mechanical device known as the vibrator, this has almost wholly taken the place of the hands, for the purpose.

The vibrator performs the act of vibration so much more perfectly and conveniently than do the hands and fingers, that it has become well known and stands in no need of introduction here. Its use is, without doubt, more popular than that of any other mechanotherapeutic mode of application, while vibration in one form or another is given for almost every ill to which the human organism is subject, by operators ranging in skill and purpose from the scientific philanthropist down to the shampooing and massaging corner barber.

This widespread employment of vibration has, naturally, involved a large amount of amateurish empiricism, which has injured the cause in many directions—a result still further increased by the attempts of various manufacturing firms to exploit vibration as a complete system of medical practice, the object being, by aid of a flood of pseudo-scientific literature, to dispose of large quantities of vibrators at enormous prices. While this systematizing of vibration as a cureall, suggested by the success of Osteopaths more than by any other thing, is being attempted, the instrument is taking the place of the Osteopath's hands and fingers.

It is an established fact that the vibrator, if properly constructed and applied, is a valuable factor in therapy, and there are many good instruments on the market, the best of them, probably, being operated by an electric motor. Before one undertakes to employ it, he should have a correct conception of its function, physiologically and therapeutically.

What is vibration? Taken in association with the instrument that produces it, vibration, properly speaking, is a succession of strokes following one after the other with considerable rapidity. These strokes may be long or short, forceful or light, while their character determines the depth of the vibratory impulse upon the tissues. In response to them, every molecule within the sphere of their action trembles more or less, the degree depending on their relative distances from the area of impact. This is vibration. When applied to the living organism, its effects are as follows:

What Effects are produced by Vibration?

As I have stated before, the most simple and elementary form of stimulus is contact. Any organic substance capable of being stimulated will respond to mere contact with any object, whence we have ciliary motion, ameboid movement, and so on. The firmer the contact, the more powerful the stimulation. If pressure, firm contact, be sudden and short, we call it a blow or stroke; a very rapid succession of these we call vibration. Thus then, vibration constitutes, primarily, a stimulus, in the sense in which I applied the

term to massage. It increases both quantitatively and qualitatively the local circulation, tones up the coats of the arteries, and, by raising the arterial pressure and thus improving the nutrition of the part, it stimulates excretion and absorption of waste products and corrects metabolism, while the pulse becomes fuller and slower.

Why vibration is indicated in passive congestion, especially when there is pain, torticollis, chronic rheumatism, lumbago, neuralgia, etc., can easily be seen. It brings about disintegration and absorption of low-grade forms of tissue (obesity) and stimulates the heart, if applied directly to the precordial region; it stimulates, by increasing its tone, the activity of the muscular structure (constipation). Its local physiological effect corresponds accurately to that of massage; for which reason the term "vibratory massage" is proper and adequate. Manual massage forms an effective therapeutic combination with vibration.

Varieties of Vibration

The osteopathic idea of influencing the different parts of the body through the central nervous system (spinal cord) and the employment of vibration as a kind of local massage have caused a division of vibration into two classes, namely, peripheral (local) and central.

Peripheral, or local vibration consists in the application of the vibrator directly to an aching part—as, in a case of lumbago, to the muscles of the back; to the muscles of the neck for torticollis; in the rectum, for constipation; or along the course of a painful sciatic nerve. It resembles a local application of massage, and whatever claim can truthfully be made for the local action of the latter, is also true, in a measure, of vibration. The primary effect is produced upon the peripheral nerves, the vasomotors, and there seems to be no doubt that the local phenomena follow in due physiological sequence.

There are four considerations of importance in the application, namely: (1) the angle at which the vibratory force explodes against the surface; (2) the degree of energy brought to bear; (3) the frequency of the stroke; and (4) the amount of pressure.

The *measure of activity*, that is, the stimulating effect exerted upon the deep tissues, as a rule, is in direct proportion to the relative intensity or depth of the stroke together with the relative diameter of the surface treated. The lateral stroke stimulates the skin and its component parts, and the greatest action is produced by a downward stroke, at right angles with the surface.

It cannot be denied that these points are of considerable clinical worth, but the technical aspects of vibration have been loaded down with a mass of minute details far out of proportion to their actual value; this, owing to the combined efforts of monomaniacal enthusiasts and the mercenary manufacturers of instruments—the former lacking knowledge and the latter knowledge as well as conscience. Vibration is not and can not be a special complete system. It is a therapeutic method, merely, although a good one.

Central vibration consists in the stimulation of the spinal nerve-centers, through which great therapeutic benefit is supposed to be produced in the regions which these centers control.

The exact execution of the vibration is determined by the effect to be attained. If to contact—the simplest form of stimulation—there is added pressure, the stimulating effect is augmented; and continued pressure finally tires out a nerve, which results in its sedation. Should pressure be continued beyond the sedative point, the activity of the nerve would be suspended and inhibition of nerve-function occur. Vibration being a form of interrupted pressure, it may be logically assumed that it can produce effects analogous to those of continued pressure.

The *effects of central vibration* may be classified as follows: (1) mild stimulation, from very short strokes; (2) powerful stimulation, from deep strokes; (3) suspension of nerve activity (overstimulation), from long-continued deep strokes.

The idea of acting upon pathological conditions through the central (sympathetic) nervous system is, theoretically, in perfect accord with the pathological view which regards all diseased conditions as results of (1) overnutrition, (2) undernutrition, or (3) perverted nutrition. As nutrition is practically synonomous with blood circulation, the idea of controlling local nutrition is resolved into the idea of controlling the circulation in an affected region.

We are as yet only at the beginning of the meaning and extent of the possibilities of central stimulation, and the subject is well worth our careful study and elaboration. Here, I can give only those general phases that are justified by our present knowledge of neurophysiology and our actual experience with central vibration.

In a general way, the anatomical location of the several central areas is indicated by the following vibration-table:

	Cervical vertebrae
Circulation (face, head, brain)	1 to 6
Circulation (general)	1 to 6
Eye	1 to 3
Heart (muscular tone)	1 to 5
Ear	6 to 7
Heart (rhythm)	2 to 4
Organs of voice (larynx, etc.)	1 to 3
Mechanism of respiration	3 to 5
Thermic centers	2 to 5
Glands (lower jaw)	2 to 3
Diaphragm	3 to 5
Plexus (cervical)	2 to 4
Plexus (brachial)	5 to 7

	Dorsal vertebrae
Stomach	3 to 12
Relaxation of pylorus	4 to 5
Liver	9 to 12
Pancreas	8 to 9
Spleen	8 to 11
Intestines (small)	1 to 10
Peristalsis	9 to 11
Chill-centers (connected with thermic ganglia)	7 to 8
Kidneys	6 to 12
Diaphragm (through phrenic fibers of solar plexus)	11 to 12
Lymph circulation (through the splanchnic)	5 to 12
Lower extremities	2 to 12
	Lumbar vertebrae
Intestines (large)	1 tp 4
Mechanism of micturition	1 to 2
Sexual desire	2
Sexual mechanism	1 to 5
Kidneys	1 to 3
Menstrual function	2 to 5
(Also 8 to 10, dorsal vertebras)	

Vaccine- and Serum-Therapy in Everyday Practice

VI. Infections of the Skin and Subcutaneous Tissues

By W. C. Wolverton, M. D., Linton, North Dakota

[*Continued from June issue, page 512.*]

Carbuncle

AS REGARDS the direct etiological agent responsible for carbuncle, the staphylococcus aureus seems invariably to be the cause. However, this condition occurs so notoriously often as a complication of diabetes mellitus that in all cases of carbuncle the urine should be carefully examined, to see whether or not glycosuria is the underlying predisposing factor. If this is found to be the case, appropriate measures, principally dietetic, must, of course, be instituted.

An interesting sidelight is thrown on the subjects of diabetes and carbuncle by the reports of Shivdas (*Jour. Vac. Ther.*, vol. i, No. 4, p. 100), Miller (*ibid.* vol. i, No. 5, p. 157), and MacWatters ("Proc. Roy. Soc. Med.," vol. iii, No. 9, suppl., p. 178) on the results achieved by them in the treatment of diabetes by the use of autogenous staphylococcus-aureus bacterins prepared from diabetic carbuncle or ulcer. They employed doses of from 100 millions to 500 millions, usually at an average interval of one week, with a most gratifying reduction in the glycosuria. In 8 out of the 13 cases reported by these observers, the sugar disappeared completely from the urine and in 2 others it was reduced to a mere trace.

Considering the anatomic location and relations of the pancreas and its duct, it would seem reasonable and logical to combine the bacillus coli with the staphylococcus aureus in diabetic cases.

As regards the medicinal treatment of the nondiabetic cases of carbuncle, calcium sulphide and the triple arsenates are indicated. Free incision and applications of compresses saturated with Wright's citrate solution are necessary surgical measures and should be resorted to early. If there is known to be an undue tendency to coagulation of the blood, as shown by observation of a drop freshly drawn, then citric acid should be administered internally, as heretofore detailed.

General hygienic treatment should be employed, so as in every way to elevate the systemic tonus.

Carcinoma

As to the etiology of carcinoma, we have nothing to say. Consequently, we have no specific bacterin or serum-treatment to offer for this lethal condition. However, bacterial invasion frequently does occur, as a secondary pathologic process, in carcinomata which have broken down and undergone ulceration or sloughing. Then a bacterin prepared from the same variety of bacteria as that concerned in the infection will, undoubtedly, be of value in checking suppuration and sloughing and in getting rid, to quite an extent, of the fearful odor of decaying tissue.

Doyen described the "micrococcus neoformans," which, while it is not claimed to

be the specific cause of cancer, is, nevertheless, found quite constantly in malignant newgrowths. A bacterin prepared from this variety of microorganism (apparently a staphylococcus) has, in the hands of a number of competent observers, seemingly definitely and beneficially influenced pain and tenderness, amount of infiltration, and the cachectic symptoms; however, the patient must be given plainly to understand that in the great majority of cases the bacterin will have no influence whatever upon the ultimate outcome of the disease.

Many "cancer-serums" have been devised, but, up to this time, none has proved to be of any value.

Cellulitis

Cellulitis constitutes a secondary manifestation of a primary focus of infection located elsewhere in the body; if the cellulitis occur on one of the extremities, the primary focus will be found somewhere distal to the more obvious secondary seat of trouble. Quite often the primary focus is very difficult to locate, as the solution of continuity constituting the portal of infection may be exceedingly minute or may have healed over on the outside, while the bacteria may be actively multiplying in the deeper tissues. These infections of the subcutaneous cellular tissues travel along the lymph-channels; the infection thus traveling from the periphery of the body toward the more centrally located structures. When the infection reaches a lymph-node, or a collection of the latter, as in the groin or axilla, the progress of the infection is either temporarily or permanently halted. If the virulence of the invading microorganisms is great or the resistance of the immunizing mechanism at a low ebb, or both, this arrest of the infection may be brief, after which the invasion proceeds with great rapidity until another chain of lymph-nodes intervenes between the invaders and their ultimate goal, the blood stream.

The logical procedure, then, is, to locate the primary focus, if this be possible, open the same freely, drain thoroughly, swab it out well with full-strength tincture of iodine, and apply a compress kept wet with Wright's citrate solution. Ofttimes, too, it is advisable to scarify or make multiple incisions into the inflamed area and apply the dressing just described, for reasons heretofore explained at length.

Again, in many cases, it is advisable to make incisions at the upper and lower boundaries of the infected area and connect them by subcutaneous "through-and-through" drains. A case in point is that of a boy I saw in consultation with another physician, some years ago, before I had begun the use of the bacterins.

This boy had cut his knee, just over the patella, with a hatchet, and because this was a bright, new, and keen one, the wound had been regarded by his mother as "clean" who, therefore, merely applied a "clean" cloth and bandage. In the course of a few days, the wound had apparently healed and no trouble was apprehended, when suddenly the boy had a chill, then headache set in, and his temperature began to climb; in short, the boy had all the symptoms of a beginning severe infection, together with constitutional symptoms. A physician was called, who advised "a little aconite for the fever" and gave no heed to the underlying condition. The boy grew steadily worse and an area of cellulitis developed, just above the knee, on the anterior aspect of the thigh. The doctor thought he detected a "soft spot" above and external to the knee joint and cut into this spot, but found no pus, only a dirty grayish serum exuding from the cut surface. Becoming alarmed, he called for counsel, and I was summoned.

When I arrived at the farmhouse, the attending physician thought he had located another "soft spot" a little higher up than the first one and wanted to cut into it, requesting me to administer an anesthetic. This I was almost afraid to do, as the boy's condition was now desperate; for the cellulitis now extended above the groin, onto the abdomen, and so much septic absorption had taken place that the heart action was very rapid and feeble. Under light anesthesia, the doctor cut into the "soft spot," but with the same result as before. Coverglass spreads of the lymph which exuded from this new wound, made at the time, and examined by me afterward, showed a pure culture of the streptococcus. Finding no pus in this second incised area, the doctor "gave up," and, taking charge of the anesthesia, told me to do whatever I thought best.

I remembered what the professor of surgery at my alma mater had told us to do in such a case, namely, to "make lots of holes and put in lots of drains." So, I made three pairs of incisions into the subcutaneous tissues, three cuts along the upper border of the infected area, and three at the lower border. With a long uterine dressing forceps, pushed from the lower incision along under the skin and emerging from the upper incision, several

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strands of silkworm gut were drawn through each of the three drainage tracts, and then a wet dressing was applied. Now the original wound was opened freely, when the same dirty grayish serum again was encountered. This wound was mopped out with gauze and then thoroughly swabbed with full-strength tincture of iodine. The boy then was given calcium sulphide to saturation, and strychnine as a supportive measure.

Here was a really desperate case, yet, the boy recovered speedily. And bacterin-therapy, had there been any such thing at that time, would doubtless have hastened his recovery still more. Had I known about and had at hand a stock streptostaphylo-bacterin at that time, I should have injected it a short distance below the infected area, into healthy tissue, so that the newly formed antibodies would have passed along, in the direction of the lymph stream, right to the "seat of war."

Erysipelas a Typical Form of Cellulitis

Erysipelas is the most typical form of cellulitis, being caused by a special form of streptococcus, hence, will be discussed separately.

Most of the cases of cellulitis I have seen were due to the streptococcus; however, other germs, notably the staphylococcus, pneumococcus, bacillus coli, and the bacillus pyocyaneus, may at times give rise to this condition.

I am sure that by means of bacterin-therapy I have "aborted" many incipient cases of cellulitis of the female breast; in other cases, where suppuration had already occurred and incision and drainage had to be resorted to, bacterin treatment materially shortened the drainage period and hastened recovery, besides materially lessening the amount of glandular tissue destroyed. In the incipient cases, resort must naturally be had to massage and the use of the breast-pump. A prophylactic measure of value is the sponging of the nipples, after each nursing, with pure alcohol; the latter having an antiseptic and "toughening" influence upon the nipples, tending to prevent their becoming macerated and cracked, while it has the further virtue of evaporating completely, leaving nothing for the baby to ingest at the next nursing.

In all cases of cellulitis in general, a close watch for collections of pus must be maintained, and, when such a collection is discovered, it must be opened and drained.

In cellulitis owing to the streptococcus, just as in other conditions caused by this organism, there is prone to be present an extensive hemolysis. Then some form of iron should be administered, for its hematinic effect. In such cases, the hypodermic administration of the citrate or of the cacodylate of iron is indicated and is probably the surest way of obtaining quick results. Strychnine is also needed, for its supportive effect.

In pelvic cellulitis, vaginal tampons saturated with boroglyceride, ichthyol, and tincture of iodine are of value when used in conjunction with sterile saline douches. The "Murphy drip" is of untold worth in this condition. When a pelvic abscess forms, drain it through the vagina, opening through the "pouch of Douglas," using a Kelly artery-forceps or the Mayo scissors to work your way through the posterior cul-de-sac. An ice-bag placed over the lower abdomen and pelvis has many advocates, and I believe it to be a measure of value. Bacterins, in this condition, should be injected into the inner aspect of the thigh, for reasons heretofore explained.

Cellulitis being an acute condition, the initial dose of bacterin should be relatively small, say, for the streptococcus, 20 to 25 millions; of the pneumococcus, the same as the streptococcus; bacillus coli, 25 to 30 millions; staphylococcus, 50 to 100 millions. The intervals between doses will vary, from twenty-four hours, to two or three days; lengthening the interval, and increasing the dosage as the condition improves.

In these acute conditions, it is well to employ a combined stock bacterin of polyvalent strain, one that contains all the varieties of bacteria likely to be involved, rather than to wait for a bacteriological diagnosis before beginning treatment. In this way, much valuable time may, and will, be saved. Some such combination as the well-known Van Cott mixture should be employed, containing about the following combination of pathogenic bacteria: streptococcus, pneumococcus, staphylococcus aureus and albus, and bacillus coli. This will meet the requirements of the great majority of cases.

Eczema

As we come to the subject of the bacterin-therapy of eczema, I feel that I can speak "as one having authority"; for, along this line, as well as in pneumonia, puerperal sepsis and acute rheumatic polyarthritis, I have had an unusually rich clinical experience. Just how many cases of eczema, in its various forms, I have treated since I began the use of

the bacterins some five and a half years ago I am not prepared to state, but the number has been large, and I can truthfully say that I have yet to be disappointed by bacterin-treatment in this usually intractable condition.

As I stated at the beginning of this series of papers, I have not, in the majority of cases, depended upon biological therapy alone, but have employed it in conjunction with other indicated remedies. And this has been especially true in the case of eczema. Whether or not bacterial infection is the primary cause of eczema, is a debatable question; in all probability the answer is in the negative. But, certain it is that in practically all cases of eczema there is a lowered resistance against the pyogenic bacteria that normally inhabit the superficial layers of the skin and which cause no trouble until a solution of continuity of tissue occurs or until bodily resistance against infection is lowered by some pathologic process such as eczema. Then the bacterial invasion is most likely a secondary trouble; but, in a large percentage of cases of eczema, especially in the more chronic cases, the eczematous process will not yield to treatment until the pyogenic infection has been overcome by bacterin-treatment. In eczema, the staphylococcus albus and staphylococcus citreus occur more frequently as the infecting organisms than does the staphylococcus aureus. It will do no harm, however, to use a bacterin containing all three varieties, or even these three plus the streptococcus pyogenes; then you are nearly certain to hit the target.

The same rule as to dosage holds here as elsewhere, namely, use small doses in acute cases, and larger doses in chronic cases. In either case, gradually increase the dose until a favorable response is obtained.

In infants and children, if a rather large initial dose is administered, there sometimes will occur a temporary lighting-up of the chronic process into an acute one, with a copious exudation of serum from the affected area. This, however, subsides in a day or two and is usually followed by a very rapid and gratifying improvement in the clinical symptoms. This acute exacerbation occurred in my first case and greatly alarmed the parents, who called me in to see what I had done; but within two days or so I was receiving their thanks for the "miracle" the bacterin had wrought.

The dosage should be about as for staphylococcic infections, as heretofore detailed. After a cure has apparently been attained, one should guard against a recurrence, by means of a monthly dose of bacterin, until convinced that the trouble cannot "come back."

In acute cases of eczema, I employ, as an external local application, zinc oxide ointment, which is very soothing to the raw surface. If there is much oozing of serum from the affected surface, corn-starch may well be added to the ointment. Where itching is a prominent symptom, as it usually is, phenol rarely fails to give relief; but it should rarely be used in amount exceeding 1-4 percent. Menthol, 1 percent, in zinc-oxide ointment, also acts well as a local anesthetic.

For subacute cases, balsam of Peru, 1-2 to 1 dram to the ounce of the ointment just named, is, in my opinion, the most valuable single remedy we possess. To this mixture, one may sometimes add, with benefit, salicylic acid, 10 to 20 grains to the ounce. In chronic cases, oil of Cade or liquid tar, about 10 percent, is indicated. Ammoniated mercury, 3 to 5 percent, is at times a useful, stimulating application. In fissured palmar eczema, salicylic acid, 20 to 30 grains to the ounce of zinc-oxide ointment, with balsam of Peru, 1 dram to the ounce, is very efficacious.

As to internal treatment, arsenic (Fowler's solution) is indicated in the *chronic, scaly, dry* forms of the disease; *never* in the *acute, weeping* eczemas. *This is an important rule*, but one which often is overlooked or disregarded.

In all cases of eczema, one should search carefully for some underlying gastrointestinal disease or disorder and correct it so far as possible. This is especially true in eczema occurring in infants. In "soreheaded" babies, fluid extract of Viola tricolor, administered internally in doses of 3 to 5 minims, three times a day, has been highly recommended by Strack, Piffard, and others.

As to dietetic and hygienic treatment, one must be careful to throw out all objectionable articles of diet, such as fat or greasy and fried foods, excessive sweets, and the like. A light, nutritious, easily digestible diet must be insisted upon, excluding condiments and coffee or other stimulants.

Water as a local application in eczema is almost always irritant and should be avoided as much as possible. To remove ointments and the like, pure olive-oil is to be used, rather than soap and water.

Keep the bowels active. A dose of calomel two or three times a week, will prove a highly useful adjunct to other forms of treatment.

(*To be continued*)

Is Syphilis Hereditary?

By E. Kilbourne Tullidge, M. D., Middletown, Connecticut

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IF WE want to discuss syphilis as a hereditary disease, accepting McFarland's definition of disease as "the inharmonious relation of the individual to his environment," it is incumbent that we first form a clear, distinct understanding of what we mean by hereditary. For, in the true biological sense, this term is much misused in medicine and surgery, being applied to many prenatal conditions that have nothing to do with it.

In biology, the term "hereditary" is used to describe conditions transferred from parent to offspring by peculiarities of the germplasm. It does not refer to accidental conditions of prenatal life by which the health or perfection of the offspring is affected. These latter conditions are termed "congenital."

Many of the present-day biologists differ as to whether acquired characteristics can be transmitted to the offspring or not. If not, then there can be no such thing as a hereditary disease or deformity. Lamarck and Darwin believed firmly in inheritance and in the transmission of acquired characteristics; Darwin making it the basis of his theory of evolution.

The Nature of Heredity

Weissmann, Francis Galton, Adami, and perhaps the majority of the present-day biologists doubt or disbelieve its possibility. It seems certain that experimental characteristics, that is, mutilations, such as result from circumcision, amputation, nucleations, scolisectomy, and the like, are not transmitted; but it does appear certain that spontaneously acquired variations from the normal may be transmitted.

Adami has suggested that heredity may be explained upon the assumption that the idioplasm, or that part of the protoplasm possessing vital properties, is composed of a mass of molecules, which constitute a central ring, to which side rings may be attached or from which they may be detached without alterations of the central primitive ring. Environment causes the central ring to have attached certain side-chain combinations, and in this way the modifications of the tissue-cells are brought about. In the same way, environmental conditions lead to further modifications, in the form of new lateral-chain combinations. Those lateral chains that are last developed are the least stable and the most readily lost, while those which have been attached for a long period of time are not readily loosened. Thus it is that conditions produced by the lateral chains that have been active for generations tend to persist, while those recent changes of structure or alterations of environment produce, with the general idioplasm, combinations too weak to be transmitted.

The hereditary conditions thus far considered refer to immediate peculiarities, as the possession by the parent of a peculiarly situated lock of white hair, which peculiarity is transmitted to the child; or the parent may have six fingers or toes, which also appear in the offspring.

In connection with certain diseases, hereditary conditions, however, are more remote. Thus, in hemophilia, or "bleeders'-disease," we find a certain mode of transmission: the male suffering from the conditions may not transmit it to his immediate offspring, though his daughters are very likely to transmit it to their sons—thus skipping a generation.

Consanguinity constitutes a dangerous element in heredity, because of its tendency to accentuate family weaknesses; this danger being in proportion to the deviations from normal of those concerned.

Atavism is another peculiarity in which the traits of remote ancestors may make their appearance, such as flat-foot, receding forehead, progenathism, that is, protrusion of the lower jaw, and also massive projecting ears—all characteristics of the lower animals and simian race.

Many pathologists divide the subject of heredity into two divisions; namely: true heredity, or the condition just discussed; and false, or apparent, heredity, commonly mistaken for heredity proper, and to which are ascribed those modifications of the embryo by conditions occurring in prenatal life. In this way, certain infectious diseases, such as smallpox and syphilis, may be transmitted from the mother to the fetus through the placental circulation and so cause the disease that has been acquired from the parent.

Those predispositions are tendencies which occur in the offsprings of tuberculous, cancerous, and neurasthenic subjects and may depend upon transmitted physiologic peculiarities, or

they may be nothing more than the result of lack of vigor of the germ-plasm, the development of which results in a feeble individual.

Do Spermatozoa Carry Disease-Germs?

The human ova are free, or almost free, from yolk and are relatively very small. There has not been a single observation, according to Adami, showing that the mammalian ovum is phagocytic, that is, able to take up foreign particles. That the minute spermatozoa should act as carriers, is still more unlikely; and the possibility that they do so has been negatived by Gaertner.

Adami has shown that the minimum number of tubercle-bacilli that will set up peritoneal infection in the guinea-pig is eight; in the rabbit, it is twenty-four to thirty; and Gaertner, after obtaining the seminal ejaculations, found that they contained a sufficient number of the bacilli to cause the disease. Rohlff did not once succeed in rendering rabbits tuberculous by injecting them with semen of men suffering from phthisis. Gaertner concluded that the semen emitted by a phthisical patient does not, on the average, contain as many as ten bacilli.

From these experiments by Rohlff and Gaertner, Adami calculates that, on the average, human seminal ejaculations contain more than 226,000,000 spermatozoa, and that, if the semen contained, not ten, but one thousand, spirochetes, the chances that an individual spermatozoon fertilizing the ovum should bear with it a spirochete and so lead to germinal infection are as 1 is to 226,000. If 1,000,000, the ratio would be 1226—only 1 out of 85,000,000,000 spermatozoa having a chance of fertilizing an ovum. One may draw his own conclusions as to the chance of a spermatazoon conveying the disease from the father to the offspring. It is so absurdly minute as to be almost nil.

Syphilis Acquired During Fetal Existence

That cases of syphilis in the newborn are most often of late intrauterine acquirement, is made evident by Chiari, who states that in 90 percent of infants presenting signs of syphilis the liver is the seat of the greatest syphilitic disturbances. Infection through the placenta amply explains the conditions in infants; for, practically all the blood on its way to the placenta passes through the fetal liver, which thus is the organ first subjected to infection.

Adami specifically states that, whenever there are active and specific manifestations of tuberculosis, syphilis or other infective diseases of the newborn child, the condition is of intrauterine acquirement, and not inherited. This statement he supports by referring to the various stages in which one may find the disease developed in the newborn.

After an interesting series of observations of experiments on healthy dogs, Friedmann concluded that bacilli introduced into the uterus, outside of the amnion, may some days later be found in the amniotic fluid. Whether through the placenta (from maternal infection), through the wall of the fetal sac, or by passage into the developing ovum before that sac has developed, organisms may infect the embryo, these various routes are adequate to explain the phenomena, without calling upon improbable infection of the ovum or spermatozoon prior to fertilization.

Children of syphilitic or tuberculous parentage who exhibit certain stigma—such as fetal cachexia, malnutrition, senile expression, senescence, even malformations—are those that have acquired these characteristics presumably through the germ-plasm which presents modifications and disturbances peculiar to the parental germ-cell.

The Role of the Placenta

After weighing the many arguments upon the passage of foreign substances through the placenta, as advanced by Bonnett, Hofbauer, Wallgren, Polano, Schmidlechner, Liebreich, and others who have experimentally proved the transmission of iron, fat, albumoses, toxins of diphtheria and tetanus, the organisms of pneumonia, relapsing fever, various infections due to pyogenic organisms and typhoid fever (which latter of the many mentioned is most frequently transmitted, due, no doubt, to its motility) it is apparent that the functions of the placenta are not limited to mere absorption by osmosis.

The reverse condition, namely, the transmission of materials from the fetus to the mother, has been demonstrated by Savoy and Gusserow. Therefore, we may safely say that it hardly seems probable that infection of the fetus may occur without some transmission of the organisms or their toxins to the mother, and the reverse.

The reason why the manifestations are not apparent at the time of delivery is due probably to a latent stage or period in which the spirochete develops a provisional immunity, only to be followed by manifestations of the disease in later life.

Keyes states, after citing "Colles' law," that the mother of such a syphilitic child (Colles' child), although herself remaining healthy during many years, almost invariably ultimately breaks out with tertiary syphilis (*choc en retour*), and that, therefore, the mother of a syphilitic child, even though she remain apparently sound, is in fact syphilitic.

In conclusion, let us suppose that, should a father transmit the disease apparently only to the fetus, by the fertilization of an ovum through a spermatozoon conveying a spirochete—and to which spermatozoon has been given its one 85,000,000,000th of a chance, according to Adami—and should this one spirochete be sufficient in itself to produce the disease (which is highly improbable and unlikely), the infection would not be confined to the embryo, but would involve the placenta as well, and from there be transmitted to the mother. The condition would be a disease, not the result of peculiarities of the germ-plasm, but the result of an exogenous or mechanical infection, but which, we must admit, in the true biological sense is only a congenital condition.

The explanation for the erroneous use of the designation "hereditary" in connection with this disease, by the profession, is probably due to the fact that only of late has this term found its authoritative definition, as here employed.

Management of Summer Diarrheas in Infants

By Clifford E. Henry, Ph. G., M. D., Minneapolis, Minnesota

JUST one word as to the examination of an infant, when one is consulted for an alleged attack of gastrointestinal trouble. Always be sure to have the child stripped of all clothing. Often the mother will not take the child's clothing off, and, so, the doctor may overlook the presence of scarlet-fever or some other acute infectious disease that starts with vomiting and a general gastrointestinal disturbance. If the child is naked, you can at the same time make an examination of the chest, in fact, a thorough examination of the entire body.

Furthermore, the urine should be examined. This fact I learned when another physician discovered in one of my patients a severe kidney lesion that I had overlooked. I had attributed the fever to a deranged stomach. A few doses of urotropin soon corrected the trouble. By a little care, a small sample of urine can be secured from even the youngest infant. Also, the last soiled diaper should always be asked for and carefully examined.

Castor-oil—the plain oldfashioned kind—is the best remedy to start the treatment of bowel troubles in children. Because of its properties of making a clean sweep and then to some extent checking the diarrhea, it has held its own. In this day of pampered humanity, when the youth of the land rebel against anything disagreeable, it speaks volumes for our old friend Oleum ricini to see it still in use.

Why do babies and young children have bowel trouble in the summer? In about ninety percent it is owing directly to carelessness or ignorance on the part of some elder. Overfeeding, or food intoxication, feeding of injudicious foods, irregular feeding, carelessness in preparation of the proper foods are the usual sources of the starting of the trouble.

There is absolutely no question but that these summer diarrheas are of toxic origin. No one specific microorganism is the essential cause. The improper feeding seems to bring about a condition that causes the common colon-bacillus to become virulent. The streptococcus enteritidis is frequently found as the infecting agent in cholera infantum. Other bacteria frequently present are, the bacillus pyocyaneus, the proteus vulgaris, and the proteolytic bacteria; also the peptonizing bacteria.

Summer diarrheas of infants may, then, be classed in two large groups, namely: (1) those owing to improper foods, and (2) those caused by some infection. In both groups, the toxemia resulting is the great danger.

About Overfeeding of Infants

Food poisoning resulting from overfeeding with proper foods seems to be the most difficult problem for the average mother to understand. She knows she is giving the baby the proper food, yet, a diarrhea develops; baby loses in weight and becomes

very sick. There are spells of vomiting when absolutely nothing can be retained, even at times bloody mucus being brought up. The stools are very offensive. The prostration sometimes is extreme, because of the great amount of toxins that have been absorbed from the intestines. The child seems to be most comfortable when resting, perfectly quiet, on its back.

In these cases, all food should be withdrawn for at least twelve hours, in some instances at least twenty-four hours. If the child cannot take water by mouth, then water should be furnished the system per rectum, either by the Murphy slow-drop method or in the form of small retained enemas. Feeding should be resumed very cautiously.

As for medication, the sulphocarbolate of sodium clearly is indicated. If the child will retain castor-oil, that should be given early. Sometimes the 1-10- or 1-20-grain dose of calomel will do better; the minute doses of calomel seemingly having a sedative influence upon the irritable stomach.

Harm of Irregular and Injudicious Feeding

Irregular feeding has the same effect upon the infant as have irregular meals upon an adult. It will derange the stomach, and indigestion results.

Some mothers think that every time a baby cries it must be fed. Then the result is indigestion which causes attacks of constipation or diarrhea and exposes the system to bacterial invasion or because of which the bacilli present become virulent.

If the child is on the bottle, the mother often will scald the milk by pouring it over the hot edge of the vessel in which it has been warmed. This scalding of the milk is a frequent cause of obstinate constipation. Also, the change in the food of the cow often will so alter her milk as to cause gastrointestinal derangement in the infant.

The habit of giving the baby a taste of all the foods on the table may be classed as injudicious feeding. When properly prepared, peas, spinach, and such green vegetables are, indeed, to be recommended and prescribed for older infants.

As in a case of food poisoning, the treatment should start with the withdrawal of all food and a thorough cleanup of the alimentary tract. The sulphocarbolates are indicated in these cases. Copper arsenite is one of my frequently used drugs. Dissolve 1-1000 grain (granule form) for each year or fraction of a year in 24 teaspoonfuls of water and of this prescribe a teaspoonful to be given every hour. Ipecac or emetine hydrochloride in minute doses has a very beneficial action, if the vomiting is persistent and there is considerable mucus in the stools.

The Bulgarian bacillus, either in tablet or bouillon form, often is just the remedy needed to change the intestinal flora from a virulent to a friendly type, and the galactenzyme tablet has proven, in my hands, to be the most satisfactory. If the stools are very acid, the galactenzyme tablets should be combined with the sulphocarbolate of sodium. The stools soon will change to yellow, showing that the Bulgarian bacillus has overcome the virulent type of microbes present.

The Intestinal Infections

For the second group of summer diarrheas, cholera infantum may be taken as presenting the typical picture.

This affection often has its origin in a mild diarrhea of the preceding group, the bacilli in the intestine either becoming virulent or some virulent, pathogenic type being introduced.

Here, the intoxication is profound and there is great prostration. The toxins generated by the bacteria cause erosions and thus open ways to invasion of the lymph-channels and blood-vessels. In one case in my practice, in which a postmortem was made, the intestine was so full of erosions that there was not more than one-half of the tissue in normal condition, while in several places there were minute pinpoint perforations. This was absolutely not a case of typhoid fever, as proved by a Widal test, which was negative.

These cases are more frequent during July and August. The extreme heat of this period lowers the body's resistance, while the milk is more liable to decompose.

In these cases of infectious bowel diseases, there is, as a rule, considerable vomiting, consequently water should at first be given rectally. Water starvation is one of the things that must be guarded against. The inability to retain water in the stomach and the frequent watery stools greatly deplete the system.

Washing out the colon with physiologic salt-solution, then, after a few moments, injecting a small amount of thin starch-water, has a very soothing effect. The prostration must be overcome by stimulation and hot baths. Brandy in water should not, as a rule, be given (as often is done), since it is likely to irritate an already irritable stomach. Strychnine or camphorated oil is preferable.

Copper arsenite is an excellent drug. Also, the Galactenzyme Bulgarian-bacillus tablets should be given early and pushed to full dosage. Upon resuming feeding, albumen-water and barley-water are much better than milk.

An Old Doctor's Life Story

An Autobiography

By Robert Gray, M. D., Pichucalco, Mexico

[*Continued from page 509, June issue.*]

THE active principles are in such extensive use in the United States and the literature is so elaborate that I deem it superfluous to go deeply into this interesting subject; for, I have, in the past, expatiated freely on the employment of aconitine, which is a fair beacon-light to the possibilities most of the other substances may lend, modified by their peculiar indications, very few others being so positive in their legitimate uses, though few others are endowed with possibilities of the heroic service aconitine renders.

Snatching Out of the Jaws of Death With Glonoin

Since glonoin came to my assistance, this wonderful substance has superseded all other heart sustainers in cases of perilous emergencies, for instance collapse and extreme debility under the critical influence of powerful depressants, such as aconitine and antifebrin, the action being quicker and more dependable, ample to resuscitate the moribund, and hold the body in warm and pliant suppleness till the heart stops; thus depriving death of its agonizing horrors, the end coming like a babe falling into healthful sleep. I often have such reaction from rigid cold limbs and distressing agony, having had three recoveries of patients above whom the wail over the dead had resounded but whose vital tissue had not suffered any shade of lesion. Consciousness and the faculties of speech and eating and drinking frequently return to those who die, when the support of the heart can no longer yield the dominating sway over the feebleness of failing nature, the magic substance previously having forced the heart to break up the cumulating congestion and pump blood into the stagnate branches of the arterial ramifications, thus slowly reanimating and warming the circumjacent structures.

This was a surprising revelation to me, that came about by having been called at two o'clock in the morning to see a patient whom another doctor had been attending for twenty-three days; the trouble being fever that had never yielded, and the urgent call advising me that from midnight on the patient had grown rapidly worse. When I entered the room I recognized that I was in the presence of death, the patient's limbs being cold and the death-rattle reverberating among the rafters of the house. I saw that the death-struggle would be long and frightful. My first impulse was, to leave at once; but suddenly I changed my mind and determined to find the limit of possibility of my glonoin in the last extremity, never having thought of its employment in such case.

At 2:30 a. m. I began giving double dosage of glonoin every fifteen minutes, repeated six times; then regular-limit doses every half hour. Gradually the agony abated. At 5 a. m. there was pulse; at 7 a. m. the girl was sitting up in bed, the body all warm, joking with her young friends, who had been weeping over her when I came. It was a sad suspense for me, the patient, the family and the friends thinking she was saved, when I knew that the heart must stop at any moment. Yet, I continued the half-hour doses right along till midnight.

The girl said she felt no pain; but several times during the day and the night she screamed, "Maria Santissima." When asked, why, she said, because she felt like it.

Soon after midnight she told me she was hungry and demanded to know what she might eat. I told her there was nothing ready but corn-starch gruel, and this she demanded. She was seated on the bed, grasped the spoon and swallowed three spoonfuls, then said that was enough, that she would now sleep awhile. I had my finger on her pulse: it struck a regular stroke. Her head no more than struck the pillow when the pulse stopped. The mayor of the town was at the side of the bed with me. I told him she was dead. He declared it impossible, but quickly convinced himself.

This was an extreme case, save for the three that recovered. And I have had a

number of other cases, but never one so intensely extraordinary for long-sustained vitality. Sometimes the family does not wish any interruption of the natural course of dissolution; and, again, I have been called even by one old European physician, for the express purpose of modifying the agony of death.

We do not positively know where to draw the line of demarcation between consciousness and apathy in the death-act. I have studied the problem profoundly, on the battlefield, in hospitals, and in the countless death-scenes I have witnessed in these tropical shambles of human slaughter; and I believe that consciousness lingers much longer than popular imagination gives credence. I have no positive supporting evidence that such is true, more than what those have told me who were long in states of collapse, as well as some who were prepared for burial and revived without any artificial intervention. They realized most things that passed, or imagined they had.

I do not regard any such testimony conclusive. Some time since there was expectation of a battle here in the night, under circumstances that would have ranged my house in the line of fire. I was advised to leave home for the night. But I went to bed as usual, not sleepy; and heard the firing commence as prophesied, the balls steadily pattering against my house and crashing through the planks. I thought it safer to keep still in bed.

Suddenly all was quiet. I waited a long time, hearing no shot nor sound made by troops. I arose and made a light. There was not the scratch of a ball anywhere about the house; and the garrison was quietly in quarters. I had slept unconsciously and thus awoke, after having dreamed of the firing too realistically to believe it a dream, when awake out of bed.

There must be some mystic affinity between such sleep and the act of dying. It were a pleasing certainty to know that absolute unconsciousness reigns supreme in the lugubrious ordeal of death; if not, those slow, long drawn dissolutions that drag along for a week or more must be too dreadful for imagination to hint at the sombre phantom of their terror.

I have seen a number of persons resuscitated who were taken from the water, apparently dead from drowning, who told me that all the acts of life passed before them in vivid review, just as consciousness was vanishing, probably a more realistic apparition than slowly dying in bed.

Professional Devotion

The three great mysteries, *birth*, *life*, *death*—the haunting *will-o'-the-wisp*, the *ignis fatuus*, of the medical mind—justify the drawing of some of their sable hues into the dark background of medical disquisition. What a pity that all that pertains to us—to our very lives—must be submerged in sombre shadows of suspense, distress, and mourning!

Sometimes the glorious tropical morning bursts around me, with its thousand brilliant flowers dancing in the young sunbeams, bespangled with limpid dewdrops glistening like diamonds, and the merry birds of every hue on the joyous wing, and then I exclaim, "O God! that nothing grievous may come here today!" And you, sordid brothers, who, perchance, may be drinking a health to the pestilence with the undertaker, you may not believe that I pine and yearn with longing fondness for a month, a week, a mere day without the shadow of suffering or wo falling athwart the threshold of my door.

I never make a visit nor receive visitors apart from the formality of professional relations. Invitations to feasts or dinners never come to me. I never eat out of my own house, save when I am watching a desperate patient in the crisis, away from home. I live alone in my big house, without even a servant, during the past fifteen months. My thoughts, my purposes, my energies all center in my profession. I do not believe that there lives or ever has lived another medical man as completely estranged from his kind, in family and social relations, as I have been for half a century.

My Friends and What They Mean To Me

However, I do possess, in my great self-abnegating professional martyrdom, maybe, that which brighter lights, men of higher clinical attainments and social felicity than I dare boast of, can neither claim nor acquire: I enjoy the volunteer friendship of some of the brightest scientific and medical minds in the United States and Europe, who write me letters—such letters!—that reconcile me to my solitary lot in unwearied constancy and lighten labors that else might be irksome. And why my renegade vagaries in the columns of medical journals should have attracted the attention of such lofty minds, have caused them to pause in their giddy soaring of research amid the immaculate purity of limpid ether, in order to greet me

in my humble home with cheering words of encomium, telling me not to turn back nor falter, now that the cream of my life is exhausted, is something I scarce can understand.

And, then the knowledge that those poor mothers whose little ones I have attended so many years, with no expectation of a farthing in compensation, with the same solicitous care as I did those of the rich, who pay liberally, are ever, in their daily prayers, supplicating health and long life for me, affords some compensation for what may seem personal sacrifices. For, although—as my friends are well aware—I do not have great confidence in the efficacy of prayers, the unmistakable gratitude of these mothers is something to be deeply appreciated; while the fact that I never deny their appeals to give to their stricken loved ones the best there is in me, may, in the end, gain me some slight measure of consideration with the Guardian Power of the universe.

And that last phrase strikes a vibrating chord in my soul. I scout and deny, of course, the superstitious beliefs entertained by the natives of this still backward land, who are positive that the elements are peopled with spirits that are flitting and roaming about in the night, some of these, at times, even deigning to converse with flesh and blood. For all that, I sometimes have had a feeling that the protecting shadow of a guardian-angel's wing was hovering over my lonely head in some great crisis of trial and danger that called for almost superhuman endurance. And in those moments my thoughts involuntarily have reverted to my twin sister, to Carrie, and to Corinne.

More About Glonoin, the Great Vitalizer

These are little grains of vitalizing sand in the wide waste of desolating woe—drops of holy water on the surface of the dreary gulf of sorrow and despair. Something too much of pain and distress is ever inseparable from medical destiny in vast fields of untamed nature and less than half-civilized people—such as are these peons and Indians.

Glonoin, as a therapeutic agent, constitutes for us the great vitalizing recourse in shock of major operations or shots or other violence, whenever prompt and energetic action is demanded; nothing else known to the profession being as quickly and powerfully effective. Down here, so frequently all depends on fleeting moments that slow-acting medicaments are inadequate; and, of course, the same urgency not seldom supervenes in the most up to date operating-rooms anywhere in the world. I do not now refer to operative shock; for, shock-producing operations in my field are too rare to be taken into account. But, purely physical crisis is the weird phantom of the clinician. He arrives, to find an emergency with which he must cope successfully within a few minutes or else compose the limbs of the victim for the long and dreamless sleep. There is not time for scientific diagnosis or urinary tests. The angel of death is throttling the patient. A congestion must be broken in a trice, else there will be nothing further for the doctor to do. A fever must be reduced, otherwise the heart will stop under the stress of excessive temperature.

These are inexorable truths that cost new men many aches of head and heart and the humiliation of seeing crape on the doors of their patrons, but which the timely and judicious administration of glonoin might have averted. With these enfeebled denizens of the torrid zone, I naturally have more serious necessity for such forceful stimulation than would be required among the same number of patients in a more salubrious climate and among stronger people.

Many a time the patient would be dead ere a scientifically ethical diagnosis could be made. Then, the only alternative is, to attack the predominating peril—fever, heart wavering, dysentery, one or the other (sometimes a pair), and this consists in the active hostility contesting the situation. The menacing stronghold reduced, the combating of minor complications very rarely is a difficult accomplishment.

The foregoing sums the good and sufficient reason why education for practice among normal people in an average climate must be unschooled and the lessons that qualify one for this peculiarly trying practice be acquired; and the practice itself is the only school that teaches the needful lessons.

The Marvelous Emetine

Emetine is the relentless antagonist and eradicator of diarrhea and dysentery in this hot and unsparing climate. What ethical therapy terms amebic dysentery I have long, down here, classed as putrid dysentery, because of its purulent, gangrenous development and deadly tenacity. This malady assumes the aspect of a malignant epidemic march of death almost as unsparing, in some seasons, as Asiatic cholera itself, and many times is little less painful. Moreover, until recent times, it was almost as obscure in

nature as yellow-fever, while we were as much in the dark as to any reliable and specific medication.

Some years ago, I read a very interesting paper, by Dr. Robert C. Kenner, editor of *The Therapeutic Record*, about the treatment of dysentery, in which he mentioned various likely drugs the names of which I do not now recall; but, he wound up by advising to try ipecac should the others fail. This suggestion was not new to me, however. I could not employ this drug here, because of the idiosyncratic tendency of these people to vomit under the slightest provocation—one reason, by the way, why standard galenic preparations of ipecac attain little success. But, while thus perusing that article, I remembered having read, in a French journal only a few days before that the active principle of ipecac does not exhibit the intense emetic property of the crude drug, and that a full dose of the former might be ingested without producing vomiting, if taken dry by the patient while in a reclining position and remaining thus for an hour, without taking any liquid.

Then and there I got the key to the secret of curing putrid dysentery! And I began to practice this method at once. I gave 1 grain of the alkaloid*—equivalent to 15 grains of the crude ipecac—as an adult dose; and this, while moderately purgative in most cases, proved so positively curative that in many instances the one dose cured the patient, without any other treatment. That is to say, I would administer the dose of emetine and instruct the patient to come or send to the office the next day for more, then heard no more of them, but later was informed that they had been well the next day.

I was actively engaged in this practice of emetine-therapy for dysentery for some years ere Rogers announced the discovery that flew on the wings of the wind all over the earth, never supposing it anything novel to the profession; for, all the world knew the value of ipecac in that disease, that its employment was interdicted by its emetic property, but also that emetine (the impure principle then known) was relatively devoid of this emetic property of the parent root. Consequently, I naturally supposed that this active principle was being used by the profession at large in the same way that I was employing it, save, perhaps, by those refractory ones who would prefer seeing their patients die rather than save them through the medium of the active principles. The truth is that outside of my own field I really gave the question no more than a passing thought. I did make some passing reference to this matter a few times in medical journals or other print, but no more specially than I might have mentioned any substances in daily use everywhere, as quite naturally I should have thought of emetine as an antidysenteric, had I given the subject serious consideration.

*This was the impure mixture of Emetine and cephaeline, as originally produced, but now differentiated.ED.

The Use of Emetine in Children

I have, more recently, abandoned the employment of emetine hypodermically in the treatment of children, giving to year-olds as low as 1-12 grain of emetoid in a little syrup or other sweet; and I am getting as good results as I got from the needle-way, while being much less troublesome and not so objectionable to mothers. There hardly ever occur any symptoms of nausea.

Sometimes, in rebellious chronic cases, I give as many as three doses in as many days. At the same time, I employ sulphocarbolate of zinc as a disinfectant, both by mouth and per rectum. I also order plenty of good strong lemonade to drink, and some lemon-juice in the clysters.

The undertaker now gets no jobs among my diarrhea- and dysentery-patients, and these diseases give me little concern, as they terminate in short order, whether in early or late treatment; however, the people do not now let them run long.

Calcium Sulphide in Zymotic Diseases

Calcium sulphide is another sterling substance, useful in many diseases, provided it is of standard quality. It should be stated here that the commercial article is worthless clinically.

The greatest service calcium sulphide has rendered me was in epidemics of black German measles and of smallpox, when it actually aborted the attacks at the very inception and proved in a high degree prophylactic for persons who had been exposed. While I was attending the people on the Santuario Rubber Plantation, and Dr. F. N. Maldenado, a friendly native practitioner, did so on neighboring plantations, we two together treated over 400 cases of German measles, without there being a single death, while "scientific" doctors, on other plantations in the same epidemic, who did not employ the calcium-sulphide medication, lost 10 percent of their measles-patients.

(*To be continued*)

What Others are Doing

COAGULEN IN STOMATOLOGY

Rifa, of Innsbruck, reports (*Deut. Monatsschr. f. Zahnhlk.*, 1915), having employed coagulen Kocher-Fonio in persistent bleeding following extraction of a tooth, a 10-percent solution being injected into the socket. He also places pledgets of cotton wet with the solution into the hollow, as a prophylactic measure.

SYNTHETIC CAMPHOR EQUAL TO THE NATURAL

During a period of more than two months, M. Levy and W. Wolff, at the Royal Charité at Muenchen, prescribed artificial camphor in the same way as the natural product (*Ther. d. Gegenw.*, 1915), and they found the action absolutely identical, even in dosage of as much as 3 Grams a day continued for three weeks. This work is one of the very few recorded of the actual clinical employment of this synthetic substance—something greatly to be desired.

AS TO THE PENETRATION OF SILVER NITRATE

Quite in opposition to the current view, two investigators—F. Schumacher and P. C. Unna—now maintain (*Derm. Woch.*, 1915, p. 13 and p. 20; cf. *Ther. Monatsh.*, 1915, p. 270) that solutions of silver nitrate penetrate no less deeply into living tissue than do those of the now fashionable organic silver-salts; and both authors explain their direct observations upon physical-chemical grounds.

It is not a fact, as at present taught, that merely a superficial layer of silver albuminate is produced upon the tissue, but, the invariable presence of sodium chloride in the serum gives rise also to the double salts of silver albuminate and sodium chloride, a compound readily soluble in the bodily fluids.

Consequently, the silver-ion of the nitrate penetrates, in the local treatment of gonorrhea, just as much into depth as do the organic preparations. Moreover, in the formation of some of these double salts, nitric acid is liberated, and this plays no small part in the resulting action.

MECHANISM OF THE ACTION OF MUSCARINE

By means of newly devised experiments—on the basis of the electrical behavior of muscles in the presence or absence of the calcium-ion in the circulation—G. R. Mines, of Vambridge (*Jour. Pharm. and Exp. Ther.*, 1915), has added further, and conclusive, proof for the contention that muscarine does not exert its toxic action upon the termini of the vagus-nerve, but, rather, direct upon the musculature of the heart itself. This he did by excluding the calcium element from the nutritive fluid circulated through the system.

THE VIRUS OF SYPHILIS

After the discovery of salvarsan, a few years ago, the efficiency of this arsenical preparation, for the treatment of syphilis, was believed to rest in the fact that within twenty-four hours after the first injection of the remedy no spirochetæ pallidæ could be found in the syphilitic lesions. Despite this fact, though, it soon was discovered that it was necessary to repeat the injections of salvarsan several times and to prescribe mercury afterward, if the disease was to be eradicated.

This paradox led to doubts as to whether the spirochetes were the actual cause of syphilis, and J. E. R. McDonagh, of the London Lock Hospital (*Lancet*, 1916, I, p. 981), concluded that, instead of being the absolute cause of syphilis, this organism possibly might be only a phase of the life-cycle of a protozoon. His investigations, the results of which he briefly described in his Hunterian lecture delivered before the Royal College of Surgeons of England, led him to conclude that the organism of syphilis, which he calls the Leukocytozoon syphilidis, evidently is a coccidial protozoon.

The life-cycle of this protozoon begins with a spore or sporozoite, which invades connective tissue or endothelial cells. In these cells, the sporozoite increases in size and, by a process of budding, gives rise to several bodies that become differentiated into male and female elements. These escape from the cells.

In other cases, the sporozoite may increase in size and divide into two and again into four. These four masses, by a process of further subdivision, develop into a spore-cyst, which then gives rise to spores.

The spirochetes develop out of the male elements, which consist of three nuclear bodies; the latter increasing in size, within large mononuclear leukocytes, and developing into coils, from each of which several spirochetes may arise; these break loose and can then be recognized as true spirochetæ pallidæ.

If the author is correct in his conclusions, an explanation will be afforded for the frequent instances in which the destruction of the spirochetes within the syphilitic lesions is not sufficient to establish a cure. Undoubtedly much more research will be necessary before all problems of this widely prevalent disease are solved.

IS EMETINE A TOXIC DRUG?

In the April 22 number of *The Journal of the American Medical Association*, the editor utters a "note of warning" regarding the possible toxic effects of emetine; the writer finding his text in an article recently published, in *The Archives of Internal Medicine*, by Levy and Rowntree—both of Johns Hopkins University—who were led to make an investigation as to the supposed poisonous nature of various samples of emetine, because of the death of a patient treated in the medical clinic of the institution named for a coexistent syphilis and amebic dysentery, and who had been receiving the drug. For twenty days, he had received, daily, subcutaneous injections of 1 1-2 grains of emetine hydrochloride, or, 29 grains, all told. The development of bronchopneumonia and renal insufficiency resulted in his death thirty days after his receiving the first injection and ten days after the last one of these doses. Subsequently symptoms of poisoning occurred in a person under emetine-therapy for alveolar pyorrhea, but this patient, fortunately, recovered.

Following these two experiences, a careful examination of samples of emetinehydrochloride supplied by five leading pharmaceutical manufacturers was undertaken. The alkaloid was administered to animals, hypodermically, in increasing doses until toxic symptoms made their appearance, and the striking and surprising fact was elicited that, while the emetine supplied by four of these houses was found satisfactory, that of the fifth proved to be markedly toxic. The name of the manufacturer of the latter sample is not divulged.

The author of the article in question does not venture to assign any reason for this toxic character of that particular article. Whether the specimen supplied was, so far as ascertained, the pure alkaloid, whether it was contaminated with cephaeline, or whether the deleterious effects resulted from the formation of decomposition-products, we still have to learn. The fact of importance to physicians, however, is, that there is on the market a brand of emetine possessing dangerous and hitherto unsuspected properties, and which it is important for them to endeavor to avoid.

There is one point in connection with this report upon which the author fails to lay sufficient emphasis, namely, the fact of the prolonged period during which the emetine was given in the fatal case. Vedder, Lyons, Ross, and others, all of whom prescribe emetine extensively, now generally advise against its prolonged continuous administration. As a rule, we are told that the alkaloid should be injected daily for not more than two weeks at most, and that within this or any shorter period the *total amount administered should not exceed 15 grains*. It will be observed that the Johns Hopkins patient who died received practically double this quantity. Really, one would think that the physicians in charge would have been on the lookout for untoward symptoms. the more so, since we are informed that "from the sixteenth day, signs of grave kidney mischief developed." Even Johns Hopkins, it seems, is not above error.

This, we believe, is the first fatality reported as resulting from emetine, although, as our readers are aware, it has been administered in thousands upon thousands of cases, under all sorts of conditions, by all sorts of men, and in all sorts of places and climates. Comparatively speaking, the alkaloid is a safe one, but, of course, the same as any other potent remedy, it must be prescribed with discretion and intelligence. Furthermore—and important—this experience points out the duty placed upon the

physician of drawing his supplies from a thoroughly reliable and tested source.

THE TREATMENT OF PNEUMONIA WITH MASSIVE DOSES OF QUININE

Dr. Solomon Solis-Cohen of Philadelphia is known to be a warm advocate of the use of quinine and urea hydrochloride, which he gives in massive doses in the treatment of pneumonia, with results which are certainly very satisfactory. His method is described with great care in *The New York Medical Journal*, June 3 and 10, 1916. Doctor Solis-Cohen objects to his therapy for this disease being called the "quinine treatment," since he uses other remedies to meet indications. Quinine, however, is the drug upon which he places most reliance, and he uses it because it is believed by him to be a chemical antidote or an "antitoxin" to the pneumonia poison. It is because the drug neutralizes the poison of the disease (or itself is neutralized by that poison) that it is possible, in his opinion, to give the enormous doses which he administers without the production of any toxic effect.

Doctor Solis-Cohen is a firm believer in "dose enough," and this rule requires, in his experience, in any given case of pneumonia anywhere between 10 grains and 250 grains, spread out over several days. In some cases a single dose is sufficient to insure recovery, but as a rule a number of doses are required, and these are administered at from three- to six-hour intervals. The first dose administered consists of 1 to 1 1-2 Grams (15 to 22 1-2 grains) of quinine and urea hydrochloride, given in 25 to 50 percent solution in hot water, which is injected deeply. This is usually followed by prompt decline in temperature with slowing of pulse and respiration. These injections are repeated in smaller doses (1-2 to 1 Gram) every third hour until the temperature falls to 102.2° F. In all, the number of injections throughout the whole case varies from one to ten, with an average, probably, of four or five, spread over from 24 to 48 hours. Patients are not disturbed for these injections when they are asleep. The general condition of the patient is also considered, and the quinine injections may be omitted if thought desirable, even when the temperature remains in the neighborhood of 103° F.

As already stated, the administration of the quinine and urea hydrochloride does not constitute in itself the complete, logical treatment of a case of pneumonia. There are other remedies which Solis-Cohen believes of almost equal importance. He particularly mentions remedies designed to support the blood pressure, these being indicated because of the tendency toward falling blood pressure in pneumonia, especially under the influence of the quinine, which causes temporary pulse depression. Accordingly, he has adopted two rules regarding the use of pressor drugs in pneumonia:

1. Inject the pressor agent with the initial dose of quinine and urea hydrochloride.

2. Repeat the injection every third hour, whenever the systolic pressure curve falls five points below the numeral of the pulse curve.

The pressor agents recommended by Solis-Cohen are cocaine hydrochloride, pituitary, adrenalin, and camphor. He frequently gives these remedies in rotation, changing the frequency of administration according to the urgency of symptoms.

Another class of remedies which Solis-Cohen uses and recommends highly and which are believed to be of an antitoxic character, are digitalis and veratrum viride. Quite apart from the action of these two drugs on the heart, he believes that each of them possesses distinctly antitoxic properties, and that, therefore, their use is justified in large doses, and this is especially true of digitalis. The physician may select his own preparation according to preference, and digitalin and veratrine are referred to as among the possibilities.

This does not cover the complete treatment of the disease. Other factors must be considered, such as elimination, the use of bacterins, correction of alimentary disturbances, the toilet of the upper respiratory tract, and the use of iodine and of the chlorides, which are believed to have peculiar values in the treatment of pneumonia.

This article must be read in its entirety to appreciate its full value, and we trust that it may be reproduced in permanent form. While the method of treatment advocated by Doctor Solis-Cohen is not entirely in accord with our own, and while he has less faith than we in the value of the decongestant alkaloids, the whole paper is rich with promise and will be found exceedingly useful to anyone who may read it.

INFLUENCE OF BOLDUS UPON PANCREATIC SECRETION

C. Fedeli, of the Pathologic Institute at Pisa, has been investigating the physiologic

properties of boldo and has found as follows (*Arch. d. Farm. Sper.;* cf. *Ther. Monatsh.*, 1915, p. 410), the experimental animal being a dog with an artificial pancreas-fistula:

The administration of fluid extract of boldo as a rule caused a generous flow of pancreatic secretion. While this action might be attributable to an increased secretion of gastric hydrochloric acid, by the same dose, the author inclines to assume also a direct pancreatic stimulation, analogous to the simultaneous cholagog action of the same drug.

Here is a hint for the use of boldine. It should be of decided value in intestinal indigestion,

ON THE ACTION OF HYDROGEN DIOXIDE IN ANAEROBIC WOUND INFECTION

Hydrogen dioxide is being employed to some extent for the disinfection of gasphlegmons and wounds infected with the tetanus-bacillus, and this determined K. Spiro to study the action of this agent upon anaerobic microbes in general. The result of his experiments as well as of speculation is the conclusion (*Muench. Med. Woch.*, 1915, p. 497) that any beneficial influence derived can not depend upon the direct destruction of the pathogenic germs, inasmuch as the concentration of irrigation-fluid necessarily is altogether too low to do so. Neither can the action be a purely chemical one upon any catalase involved, for such is absent in the case of anaerobes.

As a matter of fact, hydrogen-dioxide solution applied to wounds thus infected acts in a purely physical, mechanical way, in that the frothing produced causes the decomposed tissue debris and adhering bacteria to be ejected from the hidden depths and thus to be brought into contact with the atmospheric oxygen bathing the surface, or with any of the disinfectant agents possibly applied in dressing the wound.

IMPROVEMENT IN THE GRUBER-WIDAL TEST

When the pressure, from the military, of making diagnostic test for typhoid-fever, paratyphoid-fever, and dysentery grew enormously in Doctor Levy's bacteriologic institute for lower Alsace, the work of executing the Widal test often extended late into the evenings; and this evening work began to prove, not only time-robbing, but very tiresome to the eyes, with respect to the reading of the result. Consequently, the laboratist, Anna Perlmann, cast about for some improvement in the method, and conceived the idea that the addition of some coloring might aid. So, she experimented with eosin, fluorescin, aniline-blue, and methyl-orange, adding of a solution of one of these dyes (enough to impart a distinct color) before she got ready to read off the result on the impregnated tubules, either after centrifuging or, when using the incubator, soon after removal from the latter.

The author eventually decided in favor of methyl-orange-solution, of the strength of 1-2 percent in alcohol—the same as employed in Toepfer's reagent for gastric acidity. Of this, 2 or 3 small drops from a capillary pipette with rubber bulb suffice for the purpose.

This method the author has thereafter employed in hundreds of operations, with unvarying satisfaction. While the eyes soon tire after glancing at the opalescent ("weisse milchige") contents of the tubules, this is not so in the case of those that have been colored orange, while the distinction between position and negative is more precise.

OINTMENT FOR BARBERS' ITCH

According to A. Salinger (*Muench. Med. Woch.*, 1915, p. 649), the following unguent has given better satisfaction than tincture of iodine for eradicating barbers' itch (herpes tonsurans), especially when of the deeply penetrative form:

Salicylic acid	Gm.	8
Betanaphthol	Gm.	5
Resorcin	Gm.	4
Lanolin, to make	Gm.	100

EXOPHTHALMIC GOITER: QUININE AND UREA INJECTION TREATMENT

One of the many interesting things observed at the last meeting of the American Medical Association in Detroit was a series of photographs displayed by Dr. Leigh F. Watson, in the scientific exhibit, showing "before and after" pictures of a number of persons who have been treated for hyperthyroidism (commonly known as exophthalmic goiter) with injections of a quinine and urea hydrochloride solution. The results obtained were certainly marvelous, and the photographic evidence shown by Doctor Watson was most convincing as to that fact.

The readers of CLINICAL MEDICINE are, of

course, familiar with the Forchheimer treatment of exophthalmic goiter, with 5-grain doses of quinine hydrobromide taken internally three or four times daily. That this treatment is effective we know; but just how it acts and why it is effective, we are not prepared to state.

Doctor Watson, on the other hand, has a very plausible hypothesis. He injects the quinine and urea hydrochloride in 30 to 50 percent solution directly into the thyroid gland. By these injections he destroys the overfunctioning thyroid-gland tissue.

It is not claimed that the size of the gland will necessarily be greatly reduced by these injections, although as a matter of fact, the inflammatory reaction following is often sufficient to cause virtual disappearance of the tumor. In the photographs shown at Detroit, the writer noted that in most instances the gland was very much diminished in size—so much so as to be hardly noticeable.

Doctor Watson has been employing this treatment for two years and has had experience with a very considerable number of cases. In a paper published in *The Journal of the American Medical Association*, September 25, 1915, he reported experience with 50 cases, but, if I remember the Doctor's statement correctly, in Detroit he stated that he now had in the neighborhood of 100 to his credit.

The method of treatment is of greatest value in comparatively early cases, and it is not advised in the advanced toxic ones when the vascular and nervous systems have been permanently damaged.

The following points, according to Watson, must be kept in mind: "Much depends on a proper selection of cases; the necessity of preventing pain from any injection, by the use of local anesthesia, is of vital importance; if acute attacks of hyperthyroidism are to be prevented, the use of preliminary injections into the most prominent portion of the goiter, of a few minims of sterile salt solution given at one- to three-day intervals, followed by injections of sterile water, will be found indispensable; the result of the quinine and urea injection depends on the amount of tissue destroyed."

When properly given, the quinine and urea injection is almost painless. There is no post-injection discomfort, and the improvement is really very remarkable. The exophthalmos becomes less marked and finally disappears; the pulse becomes slower, and the nervousness and other characteristic symptoms gradually disappear. In short, clinically these patients are completely cured.

Doctor Watson believes that these patients should be treated in hospitals, by men skilled in this work, and yet he says that he has given over 200 injections, in his 50 cases, with no unpleasant effects. It seems quite possible for any skilful physician to use this method of treatment, provided he uses ordinary care.

Doctor Watson emphasizes the necessity of minimizing pain by the use of local anesthesia. In order to prevent an acute attack of hyperthyroidism (meaning by that accentuation of the cardiac and nervous symptoms) which might otherwise follow the slight pain of the first quinine and urea infiltration in very toxic cases, the doctor begins treatment by injecting a few minims of sterile salt solution in the most prominent portion of the goiter, repeating this injection three to four times at one- to three-day intervals. By this time the nervous reaction is so diminished that the quinine and urea can be infiltrated with very slight discomfort and no increase in symptoms. In making repeated injections, the same point is used; that is, the quinine and urea is injected in the same place in which the sterile salt water was introduced.

In administering the quinine and urea injections, the physician should aim to introduce the solution into different portions of the gland at succeeding injections, the purpose being to destroy the greatest amount of thyroid tissue with the smallest number of injections. Watson now uses from 1 to 4 Cc. of a 30- to 50-percent solution of the quinine and urea hydrochloride at each treatment. These injections are repeated, as a rule, every third day, the intervals depending, however, on the progress of the patient. Eight to fifteen such injections are usually sufficient.

The syringe employed is an all-glass syringe of 1- to 2-Cc. capacity, with a fine platinum needle. The site of injection is first anesthetized with cocaine or novocaine, which is infiltrated into the skin, the subcutaneous tissues, and muscles, down to the gland. The syringe is now detached and the needle is thrust carefully into the body of the gland. After ascertaining that there is no fluid in the thyroid, and that no blood or air comes through, the needle is attached and the infiltration made slowly. Care must be taken, of course, to avoid the great vessels of the trachea; also, in cystic goiter, the fluid may be aspirated before the injections are made.

Best results are obtained by keeping the patient in bed for several weeks, while giving the injections.

SUBSTITUTES FOR OLIVE-OIL FOR ENEMAS

While presenting nothing especially new, still, the following little item may not be amiss, as it may prove suggestive under certain unusual circumstances. The idea was inspired by the well-known present scarcity of every kind of fat in the Central empires, and is merely that a Dr. H. Strauss reminds others (*Deut. Med. Woch.*, 1915) that in place of the customary olive-oil for rectal injection one may quite as well utilize oil of sesame, of poppy-seed, of cotton-seed, and of rape-seed, or also liquid paraffin. He further suggests that ordinarily 50 or 100 Cc. of oil will answer, instead of the usual 200 Cc.

FILTERING-PAPER AS A SUBSTITUTE FOR ABSORBENT COTTON

Speaking of makeshifts, for reason of economy or necessity, the following may be recorded: It has been found by Doctor Verth (*Muench. Med. Woch.*, 1915) that filtering-paper, as also the grayish Chinese paper, may take the place of absorbent cotton as a bibulous dressing for wounds; the paper to be crushed and wrapped in a layer of gauze. Such a wad does not serve well, though, for daubing a wound.

INTRAVENOUS ADMINISTRATION OF SODIUM IODIDE

Sodium iodide, in 10-percent solution, may be administered intravenously in excessive dosage with impunity, according to F. Klemperer, of Berlin (*Ther. d. Gegenw.* 1915), who has injected doses of 5, 10, 20, and (experimentally) even of as high as 50 Grams (from 90 grains up to 13 drams) two or three times a week, or even, in some urgent cases, three 20-Gram doses three times daily for a limited period. In not a single instance did the author observe any serious disturbances or side-effects; in fact, some patients seemed to bear the remedy better intravenously than when taken by stomach.

Doctor Klemperer has been employing this method more especially in internal lues, particularly where the aorta was affected, combining it (Gm. 5 to 10 per day) from the first, though, with a mercurial or salvarsan. In such a course, he instills the sodium-iodide solution, then introduces a few cubic-centimeters of physiologic salt-solution, and then follows with the salvarsan; all three in immediate succession.

The relative harmlessness of this therapy, it is thought, may be accounted for by the fact that the iodine-ion will, of course, be eliminated renally more rapidly; on the other hand, it has been pointed out, that under those circumstances the full therapeutic value of the iodine cannot well be developed. Still, as to this latter point, the exclusion of the digestive apparatus, as also the massive attack, may constitute desirable features.

THE ALLEN DIETIC TREATMENT OF DIABETES

So much attention is being given in the medical journals to the Allen "starvation" treatment of diabetes, so called, that we reproduce herewith, from the March 23 number of *The Boston Medical and Surgical Journal*, the diabetic diet now employed, as presented by Joslin, Brigham, and Hornor, together with their analysis of the Allen method of treatment. We quote the summary of treatment, and the tabular exhibit of a "strict dietary," as follows:

Fasting. Fast until sugar-free. Drink water freely and tea, coffee and clear meat broth as desired. In very severe, long standing and complicated cases, without otherwise changing habits or diet, omit fat, after two days omit protein and halve carbohydrate daily to 10 Grams, then fast.

Carbohydrate Tolerance. When the 24-hour urine is sugar-free, add 150 Grams of 5 percent vegetables and continue to add 5 Grams carbohydrates daily up to 20, and then 5 Grams every other day, passing successively upward through the 5, 10, and 15 percent vegetables, 5 and 10 percent fruits, potato and oatmeal to bread, unless sugar appears or the tolerance reaches 3 Grams carbohydrate per kilogram body-weight.

Protein Tolerance. When the urine has been sugar-free for two days, add 20 Grams protein (3 eggs) and thereafter 15 Grams protein daily in the form of meat until the patient is receiving 1 Gram protein per kilogram body-weight, or if the carbohydrate tolerance is zero, only ¼ Gram per kilogram body-weight.

Fat Tolerance. While testing the protein tolerance, a small quantity of fat is included in the eggs and meat given. Add no more fat until the protein reaches 1 Gram per

kilogram (unless the protein tolerance is below this figure) but then add 25 Grams daily until the patient ceases to lose weight or receives not over 40 calories per kilogram body-weight.

Reappearance of Sugar. The return of sugar demands fasting for 24 hours or until sugar-free. The diet is then increased twice as rapidly as before, but the carbohydrate should not exceed half the former tolerance until the urine has been sugar-free for two weeks, and it should not then be increased more than 5 Grams per week.

Weekly Fast Days. Whenever the tolerance is less than 20 Grams carbohydrate, fasting should be practiced one day in seven; when the tolerance is between 20 and 50 Grams carbohydrate, upon the weekly fast day 5 percent vegetables and one-half the usual quantity of protein and fat are allowed; when the tolerance is between 50 and 100 Grams carbohydrate, the 10 and 15 percent vegetables are added as well. If the tolerance is more than 100 Grams carbohydrate, upon weekly fast days the carbohydrate should be halved.

STRICT DIET

MEATS, FISH, BROTHS, GELATIN, EGGS, BUTTER, OLIVE OIL, COFFEE, TEA, AND CRACKED COCOA

FOODS ARRANGED APPROXIMATELY ACCORDING TO PERCENTAGE OF CARBOHYDRATES

	5 percent*		10 percent	15 percent	20 percent
VEGETABLES (fresh or canned)	Lettuce Cucumbers Spinach Asparagus Rhubarb Endive Marrow Sorrel Sauerkraut Beet greens Dandelion greens Swiss chard Celery Tomatoes	Brussels sprouts Water cress Sea kale Okra Cauliflower Egg plant Cabbage Radishes Leeks String beans Broccali	Pumpkin Turnip Kohl-rabi Squash Beets Carrots Onions Mushrooms	Green peas Artichokes Parsnips Canned Lima beans	Potatoes Shell beans Baked beans Green corn Boiled rice Boiled macaroni
FRUITS	Ripe olives (20-percent fat) Grape fruit		Lemons Oranges Cranberries Strawberries Blackberries Gooseberries Peaches Pineapple Watermelon	Apples Pears Apricots Blueberries Cherries Currants Raspberries Huckleberries	Plums Bananas Prunes
NUTS	Butternuts Pignolias		Brazil nuts Black walnuts Hickory Pecans Filberts	Almonds Walnuts (English) Beechnuts Pistachios Pine nuts	Peanuts 40 percent Chestnuts
MISCELLANEOUS	Unsweetened and unspiced pickle, clams, oysters, scallops, liver, fish roe				

*Reckon available carbohydrates in vegetables of 5-percent group as 3 percent, of 10-percent group as 6 percent.

(30 Grams 1 ounce) CONTAIN APPROXIMATELY	PROTEIN G.	FAT G.	CARBOHYDRATE G.	CALORIES
Oatmeal, dry weight	5	2	20	120
Meat (uncooked, lean)	6	3	0	50
Meat (cooked, lean)	8	5	0	75
Broth	0.7	0	0	3
Potato	1	0	6	25
Bacon	5	15	0	155
Cream, 40 percent	1	12	1	120
Cream, 20 percent	1	6	1	60
Milk	1	1	1.5	20
Bread	3	0	18	90
Butter	0	25	0	225
Egg (one)	6	6	0	75
Brazil nuts	5	20	2	210
Orange or grape fruit (one)	0	0	10	40
Vegetables, 5- and 10-percent group	0.5	0	1 or 2	6 or 10
Oysters, six	6	1	4	50

1 Gram protein.....4 calories
1 Gram carbohydrate.....4 calories
1 Gram fat.....9 calories
1 Gram alcohol.....7 calories
6.25 G. protein contain 1 G. nitrogen.

1 kilogram.....2.2 pounds
30 Grams (G.) or cubic centimeters (Cc.).1 ounce
A patient "at rest" requires 25 per kilog. body weight.

Miscellaneous Articles

The Narcotic-Drug Habit: Its Ambulatory Treatment

IN THE treatment of cases of drug-addiction' one of the principal factors to overcome is the lack of self-confidence. Many a patient will hesitate to submit to the treatment for the cure of this habit on this very account. Another thing which will cause the addicts to lose courage is the sanatorium-treatment, they generally being under the impression that they will have to endure untold suffering before being freed from this drug-habit. The time and the expense is also an important factor which is to be considered.

Doctor E. S. Bishop, in the *American Journal of Surgery* for December, 1915, says in part:

"The successful cure of a case of narcotic addiction is in itself a problem sufficiently important to deserve the undivided attention of the physician who is treating it. The reduction of a drug of addiction below the amount of the body's needs robs the addict of his most valuable asset in securing and maintaining recuperative powers. Therefore, the relief and cure of narcotic-drug-addiction is not a matter to be lightly undertaken. The physician or surgeon who has in his care a narcotic-drug-addict whom he is treating for another disease-condition should remember that the patient's recovery from the condition or disease for which he is being treated depends to a great extent upon the amount of functional balance and organic and metabolic adequacy which exists in that patient; and he should realize that functional balance and organic and metabolic adequacy in a narcotic addict are largely under the control of, and vary with, the extent to which that patient is kept in an adequate drug balance.

"The establishing and maintaining of an adequate drug balance, therefore, is one of the most important elements to be considered in the management of a case of narcotic addiction undergoing operation or treatment for a condition other than the cure of the addiction. Success depends, therefore, more upon the nervous, functional, organic, and metabolic adequacy and the proper balance of the patient at the time of the withdrawal of the drug, than it does upon the special methods used for the accomplishment of the withdrawal or the amount of the drug which is daily needed to supply the body's demand. It is practically as hard to withdraw a narcotic drug from an addict whose requirement is 1-2 grain a day as it is from one whose need is 5 or 20 grains a day. One patient can be cured of his addiction in a shorter time, while another will require much longer."

In the treatment of these cases, the ambulatory method as here outlined has appealed to many an addict, who would have hesitated to undergo sanatorium treatment.

In order to make this method of treatment a success, it is necessary to obtain the full confidence of your patient and also to impress upon the addict that there will be no suffering, either mentally or physically, with the assurance that there will be a perfect cure, without the necessity of going to a hospital; and, with his honest cooperation, this will encourage the drug-habitué to make a trial at it.

He must be impressed to follow directions closely and honestly. His medicines must be taken with regularity, and the opiate must be reduced but very little every two or three days, perhaps 1-4 grain at a time. He must be cautioned not to reduce it too quickly—which, in his enthusiasm, he may do—as that will upset the physiological balance of the system. Usually the pride manifested at the successful reduction of the drug and the desire to succeed, when once it is undertaken, and the little suffering or inconvenience it entails will prompt the patient to leave it off too quickly. This then will disturb the adequate balance of the system, and disaster may result in its successful accomplishment. Therefore, it is safer to make haste slowly.

It may take a month or two, or even six months, but, if faithfully carried out, success will surely crown one's efforts.

The better to illustrate my observations and conclusions, one case will be cited as an example of this method of treatment.

Case 1. Woman, age 45, of good family history, with neurotic tendency, well preserved in mind and body. She had suffered severe sciatica when a young girl, which apparently resisted all methods of treatment. She was, therefore, given a tablet containing 1-4 of a grain of morphine sulphate and 1-150 of a grain of atropine sulphate. She found it necessary to take twelve tablets a day in order to obtain relief, and has been taking that amount daily for thirty years, although the cause for which these tablets have been taken has disappeared many years ago.

Owing to the federal antinarcotic law, she was unable to obtain the necessary tablets from her druggist. She was, therefore, referred to me for a prescription. I agreed to comply with her wishes, provided that she would follow my advice, so as to cure her of this drug habit. She expressed surprise at the possibility of being able to accomplish this and doubted her ability to undertake such a course of treatment at this time. On my assurance that she would feel no inconvenience, I finally gained her compliance and she fully assented to place herself under my care. She was informed that she need not make any changes in her daily routine of living, only that her diet must be plain and wholesome—no sweets, pies or pastry; liquors of all kind must be taboo, as well as the excessive use of tea or coffee. Also, that she must carefully and with regularity follow directions as regards the taking of her medicines.

As it is necessary to stimulate the liver and bowels, in order to overcome the stagnation which is caused by the drug, a pill of the following composition was prescribed:

Calomel	gr. 1-6
Podophyllin	gr. 1-6
Bilein	gr. 1-8
Strychnine arsenate	gr. 1-250

One to four such pills, as may be necessary, to be taken at bedtime, and to be followed in the morning by a dose of saline laxative. This to be repeated for three consecutive nights, so that the bowels would have operated freely. After this free purgation, the following antiaddiction tablets (Abbott's) were prescribed:

Xanthoxyloid	gr. 1
Atropine valerate	gr. 1-250
Cactoid	gr. 1-32
Strychnine valerate	gr. 1-128
Nuclein	m. 5

One such tablet to be taken every three hours, day and night, until dryness of the mouth be experienced, then only every four hours.

While taking these tablets, the drug must be gradually lessened every two or three days. This can, therefore, easily be accomplished without any hardship. When the patient begins to realize this, it will be an incentive to make speedier progress and leave off more than the system can stand and, therefore, disturb the adequate physiological balance. Disaster will result in consequence and the patient will be discouraged. This lady reduced her supply of tablets, from 12, to 1 1-2 a day, in thirty-two days, and, as she remarked, without noting the least discomfort.

However, in patients of a nervous temperament, there is that factor to contend with; so, the following will overcome extreme nervousness and sleeplessness:

Specific passiflora	oz. 1
Specific scutellaria	drs. 4
Glycerin	drs. 12
Chloroform water, enough to make	ozs. 4

Directions: Two teaspoonfuls in a wineglassful of water every two or three hours, when nervous, restless or sleepless.

This lady hardly felt the necessity for this: yet, others could not sleep or be comfortable without it.

Owing to sickness in her family and a great deal of worry in consequence, this lady came to a standstill in the amount of her reduction. However, she did not lose courage, and by April 1, 1916, she was free from the drug. She certainly felt grateful, as shown by the receipt of the following letter:

"My dear Doctor Tuchler: I feel that I owe you a great debt of thanks for breaking me from the drug-habit. I had used morphine for thirty years. It was given me first for a combination of ills—sciatica, rheumatism, lumbago, and gout, from which I suffered tortures for years, and then for pains in my heart. My doctors told me I could not live without it. When I went to you on the 1st of December, 1915, you surprised me by telling me of your cure, which I gladly commenced at once and found it did all that you claimed for it. When I commenced your treatment, I was taking 4 grains of morphine a day. Now I take none, and I have never had one moment of inconvenience at the present time nor while taking your

treatment. I feel like a new woman and at least twenty years younger. Once more I thank you. Very gratefully yours, Mrs.——. San Francisco, Cal., April 12, 1916."

The following conclusions have been arrived at in treating cases of drug addiction by the ambulatory method:

1. The patient's confidence and cooperation must be fully gained by an assurance that no difficulty nor hardship need be undergone in order to obtain a successful result.

2. A slow and gradual reduction of the drug every two or three days—just a little each time—will not disturb the adequate physiological balance of the system when the above treatment is faithfully carried out.

San Francisco, Cal. A. S. TUCHLER.

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[Doctor Tuchler's gratifying results prove that it is possible to treat these difficult cases of drug addiction successfully at home, provided several conditions are complied with. The physician must possess the enthusiasm and thorough knowledge of the subject, displayed by our correspondent. He must, as Doctor Tuchler insists, gain the absolute confidence of his patient; and, what is not always easy, the patient must bring to bear a not inconsiderable degree of will-power and persistency on his own part, in order to aid the physician in his management of the case. While undoubtedly there are many cases in which the ambulatory treatment advocated by Doctor Tuchler results in the lasting recovery of the patient, probably the majority will lack in one essential or another, and the method will fail for that reason.

As a general proposition it is our opinion that these patients do best under the regimen of sanatorium treatment with its careful supervision and with the close and constant contact between physician and patient. We believe that it is only in the intelligent and strong-willed patients that home treatment may be tried; or then in cases in which sanatorium treatment is either refused or is impossible. Whenever the patient can be persuaded to enter an institution peculiarly intended and prepared for the treatment of drug addiction, it is to his best interest that he should receive the advantages of institutional care.—ED.]

HOW I TREAT NARCOTIC HABITUATION

The treatment for the drug-habit is one of the most fascinating experiences that I have encountered in medical practice. You have to deal with a psychical as well as a physical abnormality. I employ the hyoscine-hydrobromide treatment. My method differs from the usual hospital practice in the manner of administration in relation to the frequency. I practice the gradual-withdrawal method, within a period of from five to ten days.

I give a combination of calomel, podophyllin, jalap, and rhubarb as a purgative the night before starting. The next morning I give a big dose of epsom salt. After thorough purgation, I give, in combination, 1-2 grain of morphine, 1-60 or 1-40 grain of strychnine, and 1-100 grain of hyoscine. Before the effect of these drugs has entirely disappeared, I administer hyoscine, 1-100 grain, and strychnine, 1-40 grain, say, at about noon. Then, at night, about 9 o'clock, I given 1-4 grain of morphine, 1-100 grain of hyoscine, and 1-60 grain of strychnine; that is to say, for the first day. The second day is largely a repetition of the first one.

Then I make my visits further and further apart. Never feed any solid foods during the first forty-eight hours; if you do, you will have on your hands one of the most obstinate cases of acute indigestion imaginable. Milk, lemonade, and broth seasoned with butter are all right, but it is even better not to let the patient have any kind of food for the first forty-eight hours.

So far as the suffering is concerned, that is more imaginary than real. However, if my patients are really restless, I do not withhold morphine, in small doses. The amount of the drug that the patient has been taking is not considered by me—the treatment always is the same.

A word about hyoscine. I read in my materia medica, and have always been so taught, that this alkaloid is a hypnotic, but my own experience with it is the opposite. Your first case may alarm you somewhat, when the patient is under the influence of hyoscine, but it is all right. Just watch the pulse. The pupils dilate to two and three times their usual size. The patient will pick at the bedclothes, hear noises, see things (such as bugs, spiders, etc.), talk incoherently; but all of that is the effect of the hyoscine.

In some hospitals and sanitaria, the patients are put under the influence of hyoscine for from forty-eight to seventy-two hours. I hold that that is a mistake; for, the patient is, in a manner, unconscious and when he wakes up or becomes conscious he does not remember very much what has happened. Therefore, when he is discharged, he goes right back to the habit. A man put in jail

will do the same thing—that is, go back to his crimes, if he has been in for six months.

You must, as in all other diseases, have the confidence of your patient. I have never seen any condition in which suggestive therapy acts so well. In hospital-treatment, the patient does not get that consoling, sympathetic, humane talk that he gets—or should get—in private practice. You can readily see the difference. I often compare the hospital-methods with the processes in a big mechanical shop. So, in an institution, each one does a certain kind of work. It comes mechanically and by routine; hence, there is not much sympathy shown, and, while the patient is physically free, mentally he still is a slave. Consequently, at the first despondency or debauch he readily takes up again the old habit.

All this is my own actual experience, without the aid of books or fellow assistants.

A. L. SAUNDERS.

Memphis, Tenn.

[Our feeling is expressed in the comment on the preceding article—that every narcotic habitué, when under treatment, should be under close supervision, preferably in an institution. Also, no treatment for these addictions is complete that does not include thorough eliminative measures—purgation, diuresis, and diaphoresis. And the doctor *must* watch the heart's action closely.—ED.]

MY TREATMENT OF INFANTILE DIARRHEA

When a child, in its second summer, has ten to twenty copious watery stools in twenty-four hours, griping pains, high fever, and so on, and these symptoms have continued for one to two days, I always begin with calomel with aromatics, 1-10 grain every half hour until six doses have been given. Two hours after the last dose of the calomel, I order castor-oil; although in older children I always prescribe a laxative saline.

To control the fever, I take 3 granules of aconitine (gr. 1-800) and 3 of digitalin (gr. 1-64), dissolve them in 24 teaspoonfuls of water, and give of this a teaspoonful every half hour, until the fever goes down. Then this medicine is omitted for a few doses or even for an entire day and night. If there is not much fever, I leave off the fever-medicine until after the castor-oil has operated.

For the diarrhea, I give either zinc sulphocarbolate or the "intestinal antiseptic," i. e., of the combined sulphocarbolates tablet. To older children or if there is much pain, I sometimes give copper arsenite, 2 tablets, of 1-100 grain each, to 4 ounces of water; a teaspoonful of this being given every half hour. This will control the pain much better than does opium.

I am a user of the alkaloids and have been for twenty years. I have taken CLINICAL MEDICINE, originally THE ALKALOIDAL CLINIC, nearly ever since its first issue, and I confess that I could not practice medicine without the active principles. Incidentally, I enjoy reading Dr. C. S. Cope's articles very much, as well as all the rest.

T. R. NASON.

Columbus, O.

VARIOUS SUMMER TROUBLES

So far as my treatment of diarrhea is concerned, I may say, first of all, that there is so little of this class of troubles in western Washington that, really, I hardly know how I might treat the varieties that you, living in the eastern and southern sections, have to deal with.

I have been in this state, excepting for a year and a half in California, since 1889, and in all these years have not seen a dozen cases of simon-pure "summer complaint," such as I encountered in New Brunswick, Canada, and in California. I have been in this little town of Sultan for eleven years and have seen only one genuine case of "summer cholera," and that child was brought to me from eastern Washington; it died soon afterward, for it was moribund when it arrived in this place.

Acute indigestion is frequently encountered here, caused by overeating decaying green fruit and such things.

My treatment is very simple and most effective. In the case of large children, a hypodermic injection of 1-10 grain of apomorphine and an enema of epsom salt will clean out the alimentary canal in short order, after which I give hyoscyamus in any form, together with minute doses of ipecac every hour or less till the nausea is gone. Then the patient gets whey or barley-water in small quantities until he drops off into a good sleep. And in nearly every instance the second or third day will find the patient convalescent and ready for a diet proper under the circumstances. Then, if there is any catarrh of the stomach, I give some hydrastis in any form, so long as it is pure, and soon the cure will be complete.

There is nothing that I know of that will quell colicky pains so quickly and surely as hypodermic injections of apomorphine. I have tried this many times, and the measure never fails to relieve more or less.

For quickly cleaning out the stomach and bowels after a debauch, there is nothing so effectual as, first, 1-10 grain apomorphine given hypodermically, then a large enema of solution of epsom salt, 1-2 ounce to 1 pint, or 1 ounce to a quart, of water.

For congestions, I give small doses of calomel, ipecac, and sodium bicarbonate, and (also by mouth) epsom salt in 10-grain doses, every hour for six hours. Do not give any morphine after the apomorphine in these cases; hyoscyamus [or hyoscyamine] is better. If needed, sodium sulphocarbolate must be given after the bowels are empty. In any case, if the bowels are infected, give calcium sulphide freely; still, injections of epsom salt will work wonders.

If blood passes, give high injections of fluid extract of hamamelis and borax or, if severe hemorrhage comes on, give emetine hypodermically. I have controlled a chronic case of bleeding ulcers of the bowels persisting for nine months by means of 4 hypodermic injections of emetine hydrochloride. Three given in September, 1916, prevented bleeding entirely till May, 1916, when the bleeding started again, but one dose stopped it at once, and it has not bled again. This woman had bled almost every month for years (both before and after the climacteric), often for a week at a time, at any bowel movement. Nothing ever controlled it before. Her bowels are always loose, but now there is no blood and she feels much stronger.

I enjoy CLINICAL MEDICINE greatly. The June number is good. I have tried chionanthus in two cases of diabetes and both were benefited; one, in fact, seems cured.

Keep an eye on liquid petrolatum—it does not promote digestion or assimilation. I have tested it out in my own family and find that it probably clogs the lacteals and causes the food to pass the bowels.

My daughter, a high-school teacher, tried it for sluggish bowels and found it produced weakness and hunger, the flatus discolored her clothes very badly and gave her a disagreeable odor both of breath and perspiration. Consequently, I directed her to discontinue it. Soon she improved and the bowels remained better. *The Medical Council* has mentioned the clogging of the absorbents by the heavy oil, but the odor and discoloration of clothes are my own original observation, and I give it to you as a pointer for future consideration.

THOMAS W. MUSGROVE.

Sultan, Wash.

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[Doctor Musgrove has given us some valuable hints, and I am sure we shall all be grateful for more. The evidence as to the value of emetine in hemorrhage is convincing; and we know, from personal experience, what a useful drug apomorphine is for treating summer ailments.

Liquid petrolatum has its limitations, one of them being the tendency to "leak" with discoloration of the clothing. I believe this has been noted by everyone using it extensively. This difficulty can be overcome largely by using an emulsion of the oil which will mix intimately with the feces instead of insinuating itself around and by any scybalous masses. For this same reason, the emulsion is less likely to cause the delayed absorption sometimes complained of by those suffering from feeble digestion.—ED.]

BOWEL TROUBLES OF SUMMER YEARLINGS

Forty years ago, a mother with her yearling babe sprawls in bed on a hot summer's night, with every evidence of perfect health of both. The "wee sma" hours pass, and with them a life, crushed out by infantile cholera's steamroller. Pandemonium reigns. The doctor, hurriedly called, had ordered his pet prescription – a catechu and bismuth mixture – and finished the job with paregoric. It was about the best he could do then. This sketch is neither overdrawn nor confined to the treatment of children.

The misfit in that day, and in these days, was, and is, due to lack of, and disregard for, fixed instructions for the mothers as to how they should observe every bowel action for evidence of any radical change.

If the doctor's catechu, bismuth, and paregoric happened to delay the funeral forty-eight hours, the breast was given liberally to the child in order to quench its thirst, at the same time filling to overflowing the entire intestinal canal. The febrile state, present before the explosive outbreak, was started anew. The doctor's duty was, and is, to teach the mother a few simple laws of cause and effect, to tell her about the character of the dejecta at the beginning of an infant's existence. This applies today. Did the doctor himself know about this then, and does he know today?

Today, with our advanced therapeutics, this baby could be saved. How? Emetine instanter. Supportives, such as dry heat, over all the body. Glonoin and atropine, each to effect—in a case like the one cited, hypodermically, in order to overcome the danger of collapse, and adding strychnine, then giving the emetine. When a reaction is established, give 1-10 grain of calomel, repeated at half-hourly intervals until 1 grain, all told, is given.

Repeated lavage of the bowels with saline solution must be practiced while pursuing this course of medication.

Should colicky pains give trouble during any period of the attack, control them with hyoscine hydrobromide.

The foregoing plan should overcome the trouble. And it will. The child will rally quickly, but will need careful supportive treatment, besides proper intestinal asepsis—and for this I know nothing superior to the sulphocarbolates.

In the mild cases, treatment is the same, except for omitting the "collapse drugs." In all cases of summer diarrhea, withhold the usual nourishment for from twenty-four to forty-eight hours.

Should colitis result as a sequence to any such case, then nothing succeeds like the bacillus bulgaricus, freely given, to establish friendly bacterial colonies in the colon. Only be careful not to overdo a good thing and get a lactic-acid excess. This method will seldom cause grief.

J. D. JUSTICE.

Hunter, Okla.

HOW TO GIVE INTRAVENOUS INJECTIONS

Fads and fashions come and go. They leave behind them data that in some future time are dug up and rejuvenated. At present (among other things), intravenous medications are the vogue. However, many physicians still shudder a bit at the idea of putting drugs directly into the blood.

In the treatment of malaria, I have been using, in this manner, quinine and hydrochloride, and, as compared with intramuscular injections, there is all the difference that can be imagined. First, the former are more potent; secondly, there is no sore; thirdly, no reaction occurs. The patient will tell you that he tastes the quinine in the mouth before you have completed the injection, and he may experience slight nausea for a few minutes.

All you require is, an all-glass syringe of not over 5-Cc., capacity; a good sharp needle; and some arrangement for sterilizing. For the latter purpose, I use a chafing-dish, put some water into it, and light the burner. I then tie a string around the syringe-plunger and needle. Then deposit them in the dish. I also put into the water a small cup. I boil the whole for ten minutes.

Now pour the cup full of boiling water, then allow to settle and cool for a short time. Remove the syringe with *sterile* hands and place the dose of soluble tablets that you desire to administer (usually 5 of 2 grains each) in it. Push the plunger down on them, then through the needle draw in enough water from the cup to make a perfect solution.

Bind off the selected vein to produce tension (usually the arm above the elbow). For this purpose, a good, clean handkerchief will do. Wrap the binder around the arm twice, then give it a double twist, so as to make it hold without tying a hard knot; or moisten it a little, when it won't slip. This is, to allow you to release the pressure easily, in order to let the blood start to flow after your needle has entered the vein. Next, with the stopper of the bottle, dab a little tincture of iodine on the skin at the point selected for the puncture. Now all is ready.

Make the puncture into the vein. You will know when the vein is entered by the return flow of blood into the syringe. For that reason, you do not want to use a needle that is too small. As quickly as you see the blood in the syringe, make pressure on the plunger, for the blood might clot in the needle. After you have expelled all the blood from the needle, take time to relax the pressure, by loosening the bandage, to allow the blood to flow, as said. This will make it much easier to expel the contents of the syringe into the vein, because there is considerable back pressure. All done! Now withdraw the needle quickly and place a finger over the puncture for one minute, then wipe the iodine off with a little alcohol.

All this will not give as much pain as does a hypodermic injection of morphine subcutaneously.

I use a B. & B. platinum needle, about one inch long and just a little larger than the regular hypodermic needle. I use the same needle for giving regular hypodermic injections as well.

I never have had an accident of any kind. All the complaint the patient will make is, that he will probably mention that he is tasting the medicine before you get it all into

the vein. I have used it at a temperature of 105 degrees, with the effect that the patient will have a profuse sweat inside of thirty minutes, and the fever will not return.

If any reader has under treatment a case of chronic chills that he cannot cure and which does not depend upon hookworm-disease, let him try this plan. It does not even make the ears "rattle."

T. H. STANDLEE.

Edgewood, Tex.

THE ANFRACTIOUS AUTOMOBILE AND ITS DRIVER

We, the readers of THE CLINIC, congratulate ourselves upon being able to peruse, among many other interesting articles, those by Doctor Benedict about the automobile. This fractious and festive vehicle has become such an important element in the workaday life of the doctor that it compels us to take it seriously. Any item of knowledge added to that we already have is a welcome addition, especially when one depends entirely upon the machine for transportation.

I fear that I am not in the doctor's class of novices, having now driven over a total distance of more than a hundred thousand miles. Some of those miles have been very long, some very short. The shortest ones have been those when I have taken my family for exploratory journeys over the far places in this wonderful country of ours. On these journeys, my son and I drive turnabout. We disagree with some of Doctor Benedict's preachments, but it is not of that that I wish to write. According to the various observations made by us on our journeys, far and near, we have formulated a book of rules. I am impressed with the idea that it is a good little book, even for the veteran driver. I will expound some of its important doctrines.

THE BOOK OF RULES

1. Meet to the right, pass to the left.

2. On every railroad a train is coming. It remains to be seen whether there is time to cross.

3. Always cross a railroad-track on the low gear, and never attempt to change gears while crossing.

Exception: Provided one can see for a long way in both directions and, if the ground is level, cross on the high gear, but make a slowdown.

Truism: A railroad crossing is never on level ground.

A blood-chilling escape in the fastnesses of the Cascades caused us to formulate the next rule, viz.:

4. Any old mossgrown track has trains on it.

5. At the bottom of every hill there is a bump.

6. At the end of every bridge and at every culvert there is a bump.

Exception: On one of our pilgrimages we visited the lovely and fertile valley of the Yakima, where an immense irrigation-project has literally caused the desert to blossom like the rose. Irrigation-ditches of large caliber usually follow the tops of ridges. Hence, this addition to the rule book:

7. In irrigated districts at the top of every ridge, there is a bridge.

8. On obscure curves, you, yourself, must avoid collisions. The other fellow will not.

9. If you "cut" obscure curves, your collision is only a matter of time.

10. *You* must take care of the pedestrian, for, he will not take care of himself.

11. You must see all of the road all of the time, and in towns you must see all of the street, including all of the sidewalk all the way back to the houses.

"See that abstracted individual standing quietly on the sidewalk? He is going to wake up quickly and walk right in front of your machine."

12. Every slow-moving vehicle has a child hanging to the back of it. You cannot see the child, but it is going to drop off and run in front of you too late!

Collisions with inanimate objects are usually easily accounted for. Certain animate objects, however, deserve special thought. Children are swift on their feet and absolutely irresponsible. In play, they are deaf to your horn and they do the most unusual and unaccountable things. Playing quietly by the roadside, they will run swiftly, without warning, in front of your machine. An accident has, thus far, not fallen to my lot, but I can imagine the horror of striking a human being with the heavy and swiftly moving car.

When a locomotive-engineer makes an application of the brakes for a slowdown, he calls it, in the vernacular of the railroad man, "pinchin' 'em down." We have adopted the vernacular in the formulation of rule 13, to wit:

13. When you see a child ahead, pinch 'er down.

Another animate object deserves special consideration; not because of swiftness of foot, but because of a most rudimentary

knowledge of the automobile. I refer to the cow. Her cerebration appears to be exceeded in deliberation only by her fixed determination to avoid sudden or coordinated physical exertion. We have made sundry endeavors to improve her education, but have, as a result, merely the marks of crumpled front fenders. A front fender judiciously planted in the flank of a cow does not hurt the cow, but it does crumple the fender. We have, therefore, set the words of rule 14 to the tune of an old drinking song, as follows:

When you see a cow, pinch 'er down,
O, when you see a cow, pinch 'er down,
When you see a cow, pinch 'er down, pinch 'er down,
Pinch'er down, see a cow, pinch 'er down!

The next time opportunity offers, slip your car close to a cow and sound your claxon, and see whether you think it puts her teeth on edge.

J. H. BRISTOW.

Portland, Ore.

A WARNING AGAINST AN IMPOSTOR

The W. B. Saunders Company, of Philadelphia, has requested us to publish the following warning:

"We are advised that a very clever swindle is being worked by a young man calling on physicians in various sections of the country. He is fraudulently soliciting orders and collecting money for subscriptions for medical journals and for medical books published by various firms. He usually represents himself as a student working his way through college and trying to get a number of votes to help him win a certain contest. He sometimes uses the names of L. D. Grant, H. E. Peters, R. A. Douglas, and F. C. Schneider, and he usually gives a receipt bearing the heading of some society or association, such as The United Students' Aid Society, The Alumni Educational League, The American Association for Education, and so on.

"The description given of this swindler is as follows: A young man of the Jewish type, rather slender, with very dark hair combed straight back, and shows his teeth plainly when talking.

"The whole scheme is a fraud. The societies mentioned do not exist. The idea is, to collect money by offering special discounts and prices on medical books and journals, and then to skip with the money.

"This young man does not represent The W. B. Saunders Company, whose name he frequently uses. He is a fraudulent subscription-agent, and physicians generally should be on the lookout for him."

[In this connection, we refer to an article on the same subject printed in the May CLINIC, on page 454. We should not be surprised if the man referred to by The W. B. Saunders Company is the same one of whom we know as I. D. Farr.—ED.]

IT MUST BE TRUE

The best and finest doctor
  In all the country 'round
Is that young Doctor Gizzem,
  Who lives at Jerrytown.
It does beat all how many folks
  He's snatched from grim death's door;
Since he's been there the folks don't fear
  The fever anymore.
Some of his patients die, of course,
  But you may be assured,
If they had done as Doc had said,
  They leastways had died cured.
You take his dope a little while,
  And you'll soon get your health.
How do I know this all is true?
  Why, Doc said so, himself!

G. W. BURNER.

Johnstown, O.

MORE ABOUT THAT SWINDLING SOLICITOR

We have just received another communication from a physician in Madison, Illinois, who writes as follows:

"On May 26, I gave a check for $5.00 to a man calling himself Geo. Walker, who purported to represent The General Supplies Company of Chicago. His plan was, to sell membership cards, and, by paying $10.00 per year, you would become a member and be able to buy auto supplies at considerably less than the retail price. As I was to receive a catalog in a few days and not getting any, I wrote to The General Supplies Company, and I will give you their reply.

Dear Sir: Referring to your letter of the 5th instant, addressed to The General Supply Company, 34th and State Streets, Chicago, which letter, after search by the postoffice authorities for the above company at the address given has been turned over to us:

We hasten to advise you that Mr. George Walker does not represent us and, furthermore, that we do not do business on a socalled "membership-plan." We issue no catalog, but we do deal in automobile and bicycle supplies, together with the other line of goods shown on our letter-heads.

For your information, I will state that yours is the second letter of this kind that has been turned over to us concerning the actions of Mr. George Walker, the previous letter being received from Dr. O. A. Kell, Salem, Ill., under date of May 30.

We handle "Ford" supplies and can supply them to the consumer at a reduced figure; also tires, etc.

Respectfully,

R. M. TOMKINS.

"I believe that, if the doctors who read CLINICAL MEDICINE were informed about this, it would perhaps save them the fee and also be able to turn this man up."

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[We doctors have always been more or less "easy marks" for confidence-fakers, and it is time that we show these gentry that we can keep our eyes open.—ED.]

POTATO-PARINGS FOR EXTERMINATING LICE

I read in your journal for March an article recommending oil of turpentine as an exterminator of lice. I modestly submit a remedy which I have used for years with unfailing success. It is equally fatal to any kind of lice, whether on animals or human beings.

Boil 1 quart of potato-parings in 3 pints of water, strain. Apply the cold liquid freely to the infested surface. It will kill all the vermin and put the nits out of commission.

ALICE M. THOMPSON.

Tooele, Utah.

BACTERIN-TREATMENT OF ECLAMPSIA

Lately I have used bacterin-therapy in puerperal eclampsia, with marked success. The baby was born at 12 midnight, and at 1 o'clock, just as I was leaving, I was called back and found the mother in convulsions. I gave veratrine hydrochloride, to slow the pulse, and repeated it in each attack, which came on every three hours. But, as they continued into the second day, I became alarmed and gave her a mixed bacterin of 100 million colon-bacillus and 50 million each of streptococcus, pneumococcus, and staphylococcus aureus, albus, and citreus. After the second injection, given twelve hours after the first, the convulsions ceased to appear. I do not know which did the work, but I presume the colon-bacillus was at the root of the evil.

This may be a hint worth trying, for at least it will do no harm.

N. W. D. COX.

Arlington, Mo.

ONE WAY OF TREATING DYSENTERY

Conforming to your request for a symposium on pellagra, dysentery, and summer diarrheas, I venture to submit the following on dysentery, as just now I am in an epidemic or, rather, a pandemic of that disease, and will give my very successful present treatment while it is fresh in my mind.

I prescribe calomel, 1-10 grain; zinc sulphocarbolate, 1-4 to 1-2 grain; bismuth subnitrate, 1 to 2 1-2 grains; to be repeated every two or three hours, to clean out and aseptisize the bowels. I combat the fever and the hemorrhage with aconitine, magnesium phosphate, and Bulgarian bacilli, together with atropine, dosed according to age. I wash out the colon with enemas of physiologic salt solution or ordinary soapsuds, to cleanse, and introduce after this a suspension of the Bulgarian bacillus, about one-half to one teacupful at a time; it depending on the age as to the quantity used with the expectation of retention.

If the bowels are *very* active, I prepare a solution of argyrol, 1 dram to 1 ounce of water, and of this solution I add a half to one teaspoonful to a half to one teacupful of sterile water and throw this into the colon, with the expectation that it be retained.

I feed albumen and buttermilk to which the Bulgarian bacilli have been added. Breast-fed infants need no feeding save the mother's milk. As a matter of fact, I never lost a breast-fed patient, and I have had many such in the past ten years. I have three under treatment now and all are doing nicely, although they had stools of mucus and blood as close as only thirty minutes apart and temperatures ranging as high as 103° F.

This present epidemic takes on the form of cholera infantum and is much harder to handle than formerly; but, I am glad to say, the disease is yielding well to my treatment.

Do not forget the old slogan, "Clean out, clean up, and keep clean," and feed the pauper.

If anyone can help out, I shall be glad. This is just my way of doing it. Others have other ways and other means. The other only thing I should add to the treatment is copper arsenite if the stools are green.

A. L. NASON.

Mathiston, Miss.

CURRENT COMMENT BY A COUNTRY DOCTOR

Near-Eclampsia and Autoinfective Septicemia.—The patient, a primipara in the late twenties, one of those individuals in whom the struggle to maintain balance between anabolism and catabolism is maintained only

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ATLANTA MEDICAL COLLEGE

by a strenuous draft upon reserve force when physical strain is augmented above the usual. Her pregnancy was uneventful until the term was nearly completed, in fact, nature was responding to the new physiological impulse in a remarkable manner. Urine examinations were negative, until the last one was made, four days before confinement. Edema, slight during late pregnancy, suddenly became very pronounced and abundant albumin appeared in the urine.

A milk diet was immediately insisted upon. Elimination was pushed, with an initial course of calomel, podophyllin, and bilein, followed by laxative salines. Then I continued with irisoid and chionanthoid, an old hepatic trouble of hers being in mind, while there was a yellowish coating on her tongue. Arbutin and *much water* were prescribed for the nephritic indications; the sulphocarbolates of lime and soda also were given, to meet evidences of intestinal autotoxemia.

No one, save the thoroughly efficient trained nurse, was aware of the imminent danger of eclampsia, since, at times, it is best to maintain a beneficial optimistic psychological atmosphere. However, both nurse and physician went into action well prepared for the possible eclamptic soul and body-harrowing of all concerned. The requisite treatment was all there; namely: veratrine, apomorphine, lobeline, pilocarpine, and elaterin; incidentally, blankets for a sweat aider were available and the hardware for a quick delivery was sterilized. But the delivery was without incident, save for being a "dry birth," and pituitrin was indicated late in the second-stage presentation, since the dilatation and diameters offered no contraindication, even in this primipara.

Everything went splendidly! Not so the lochia, which were scant and disappearing, the function of secretion being "on strike." That dreaded form of puerperal fever incident upon failure of the physiological process to care for the usually innocuous waste set in. The albuminuria continued. The gentle use of a *dull* curette for possible placental debris was followed by intrauterine pix-cresol irrigations. The main reliance, as always in like conditions, was a saturation with echinacoid alternated with calcium sulphide to the point of keeping the stools odorous therewith; a course of the Van Cott polyvalent vaccine being used as accessory treatment; while the asthenia was met with strychnine valerate, digitalis, and cactus, as indicated.

Even with cautious medication and restricted diet, dysentery, with mucous stools, appeared on the sixth day as complication, and a circumscribed tenderness and some tympanites caused the figurative hirsuteness on the alopeciatic attendant's head to rise in fear of peritonitis. Opiates were temporarily resorted to and hot applications of a saturated solution of magnesium sulphate under oilsilk were made. Cholagog action was maintained with chionanthoid, and the bowels were cared for with the syringe and exhibition of liquid paraffin catharsis—excess peristalsis being thereby prevented. Strychnine valerate was continued during convalescence, with nuclein and iron to aid the reconstructive processes. She made a good recovery, and she had an unweaned baby, to go into the hot weather struggle for its biological existence.

After all, it does not do to be worried by statistics; most of 'em were compiled before Van Cott's prepared bugs were added to echinacea. Keep cool and push the indicated remedy to effect, never overlooking corollary symptoms that may necessitate modifications of treatment. Forget all about medical nihilists. Know what your drugs will do, and reinforce them with the suggestion of conscious power. Don't start out by protecting your reputation with a gloomy prognosis. Finally, get consultation, if you need it. One way you can do this is by turning to your files of the up to date medical journals and seeing what someone else in the same predicament did. You may get a valuable hint. Yes, and you may find that the other fellow did just what you are doing, and thus feel that you have the help of an unknown friend.

Is a law strictly up to modern thought which would prevent a physician from advising a mother who must reproduce at such terrible risk of leaving the one she has an orphan? This writer leaves it to Doctor Robinson and others. Pretty serious thing to have a woman take chances on puerperal fever and eclampsia again, even though once fortunately placed convenient to careful attention and in reach of plenty of Van Cott, echinacea, and nuclein. It would almost seem that she should be allowed some slight say in the matter before again going down into the valley and needing a hard medical fight, as well as that petition in the litany, which was written by someone whose knowledge of human need extended to the awful trial of a woman perpetuating her species, even when physically fit to do so.

Bad Management.—As it is esteemed praiseworthy to report one's errors of judg-

ment, mention is regretfully made of the following obstetrical fiasco, hopes being had that it may prevent like mistake in judgment by some other practitioner.

The summons came at 3 o'clock on a dark morning: "Dat der granny woman she say hit 'shuah cross ways an' I better get 'er doctah." Questioning brought out that this darkey woman had been in labor for twelve hours and that it was something ranging between simple inertia and a complicated twin presentation. The previous day's work had been hard and retirement late; also the OB emergency department was not in its usual readiness. Thus, a delayed start was made—hot coffee being also awaited, in probability of a hard trip, with nothing clean or appetizing at the distal end thereof. Autosuggestion of a tough and undesired deal added to the general delay, and it was a full hour before everything up to and including the forceps, chloroform, pituitrin, and H-M-C were ready. Then came another hindrance, owing to the horse having become imbued with the same spirit of loitering. Once started, excellent speed was made, but there had been too much loss of precious time. A mounted messenger with a nearly winded horse met us on the way.

"No need 'er coming, doctor, hit's too late."

"Molly dead?"

"No, sah, she aint daid. She fine and done foun' her heir."

Twenty dollars and mileage gone. Also the added glory of a quick and painless delivery at the cost of one H-M-C and an ampule of pituitrin. If Aunt Jezebel's hands were not beyond the mother's high-power infection resistance, no M. D. will have any part in that accouchement. It was a case fully protected as to payment, too.

Some of Aunt Jezebel's Obstetric Certainties.—It will be of interest to those who have been relying on macrotoid, caulophylloid, and perhaps a bit of H-M-C to relieve after-pains that all this is entirely needless. Just put the woman's husband's razor under the mattress two days before confinement and leave it there, and there will be none of this disagreeable aftermath to combat. What effect the razor of other than the husband's, if, as at times happens, he is not the source of the heir apparent, Auntie does not say. Perhaps the razor's failure would be proof of infidelity.

No use to use atropine or any other drug to terminate lactation. Just milk the woman onto a hot brick, and that will do the work.

Under no circumstance, allow a woman to eat fish, even if they be bright-eyed and red-gilled in their freshness, for four weeks after confinement. It is one of the most deadly things that can be given during the puerperium.

Puerperal septicemia can only follow improper disposal of the afterbirth. Bury it properly, and all will be well. All this scrubbing is foolishness.

Refilling Prescriptions.—It would make it easier for the druggist who wishes to act correctly toward the physicians, and harder for the one who does not (perhaps he is influenced by the devil of economic determinism), if it were written upon all prescriptions that they were not to be refilled and no copy be given. The prescription is but a memorandum to the pharmacist of what to prepare for the patient *at that time and in his present condition, and for him only.* Incidentally, it is not for a neighbor or a second cousin, who might be injured by it. Why not have something to this effect on the prescription blank? Recently a man came to the writer, requesting that a refill be made of a copy of a prescription containing heavy dosage of sodium cacodylate. This had cured him of *rheumatism*; therefore, it would cure another for whom he desired it refilled. Perhaps the person upon whom the holder of the prescription was about to *practice medicine without a license* also needed sodium dimethylarsenate. However, that prescription was *not* refilled, neither was an extra copy made, as requested, to be given to the holder. The writer received a "ballout," and someone will, in all probability, accommodate the gentleman. But our skirts are clean.

That prescription should have been protected against its becoming, not a cureall, but a possible "harmall." Our prescriptions have always been protected with "Non rep. et non cop."; but, if we ever return to urban practice, it will state on the blanks in plain English just what the prescription is intended for: the patient himself at the present time. Don't blame the druggist, when the fundamental fault is at home. The large majority of pharmacists will do their part with proper cooperation from the doctor.

Personal Experience with Emetine.—Reading the current medical journals, the man skeptical about emetine value in pyorrhea will still be found, although he is now but sporadic. The truth about this drug is, as attested by many clinicians and writers, that it will kill the entameba of Rigg's disease. Most certainly, it will not relieve conditions requiring dental surgery. Conditions that

gave original cause of the trouble will immediately do so again if not relieved.

This writer, as a result of a rather early enthusiasm in the following of Bass and other exponents of emetine efficiency on the part of his dental adviser, Dr. A. Lawson, Jr., of Greensboro, Alabama, now rejoices in a most useful bridge swung to a canine tooth and incisor, which under former dental practice were condemned to extraction. Despite a characteristic looseness of the teeth before treatment, now they are firm, and rigid care is being taken of them. The slightest return of pyorrhea will be greeted with ipecac on the toothbrush and more emetine in the circulation, immediate consultation of a dentist not being overlooked. Six injections were taken in this case, three intramuscular, and an alternating three were made into the gums themselves.

Of emetine in dysentery, nothing will be here said, save that the writer still uses it, blood in the stools being the indication, without waiting for microscopic confirmation of the diagnosis. It is the first thought in hemorrhage, and not incompatible with other indicated treatment.

The Physician Drug-Addict.—In CLINICAL MEDICINE for May, request is made for comments upon the case of a physician who has become a drug-addict. It is most difficult to do aught else than to deliver a homily or call attention to some line of treatment with which the victim is doubtless familiar. In place of this, these remarks are made.

Many a splendid physician has, through overstrain or other economic conditions, become the victim of divers drugs, including morphine and "booze." The start was made in various ways, most often by pushing brain activity, in the attempt to do too much, by the use of dangerous therapeutic tools – tools that would not have been used on another. But, let that starting-business go. This unfortunate got started and society wants him to "come back." This he can do and become of great use to the social fabric and a source of personal happiness. But it seems to be a case where the main help that can be given is in arousing the consciousness of his own inherent power. You can come back, brother —do it!

Easily said, but not easily done. No! Not easily said—mighty hard to advise a soul- and body-sick brother, no matter what the desire to help him. As for its being easy for the advised one—on the contrary, it will be a mighty hard job for him, a great big man's job, a proposition where he must do the hardest kind of thing conceivable to a physician, namely, treat himself. No other man can do it, although it most certainly can be done. This writer believes that the help-seeking brother will realize that at last analysis it is up to him and that he will make good. It is straight up to him and his conception of Deity. Eliminate self-pity realize who you are and what you are, also what you still can be and *must be*. Those sick folks need you. You have saved lives, and you can save more, including your own.

Change of location will be advisable. Hit a new place, put on a bold front, and do not overwork, either on your patients or through mental anxiety for fear you will not make good. Get that *fear* out of your mind. There are a lot of "knockers" in and out of the profession, but the majority of mankind wants to see you make good.

Maintain a good physiological metabolic balance, and realize that you *can make good*. Go to it, brother! Your case is not hopeless. This writer wishes that he could sit down before you, assume that laity-impressing look of consummate wisdom and write you a prescription. But this is impossible. Do it yourself, and realize that the indefinable but immeasurable force of good will is with you.

Skin Medication, a Lanolin Substitute.—There is a tendency to forget the value of the skin as a means for the introduction of medicinal agents. Probably this is because we fail to keep before us the picture of the corium as a network of capillaries, capable of carrying soluble material directly to the lymphatics and blood-vessels of the subcutaneous structures, thus giving prompt access to the general circulation. Often, in cases of refractory intestines or because of the inconvenience in certain cases of intravenous or hypodermic medication, the skin is the ideal route. Very often it is of untold value as an auxiliary to other procedures. Especially should the dermal route be a favored one in pulmonary and glandular affections.

The skin should be cleansed and relaxed. Soap and hot water, alcohol, benzin, and gasolin are all serviceable at times. The vehicle for the medication must be selected with a view to penetration and solving power. When an ointment is chosen, the most universally employed and effective base is wool-fat (lanolin, adeps lanæ). The phenomenal rise in the cost of this substance, largely owing to the reprehensible custom of using mainly foreign products in medicine—even as to the sheep or other raw material grown

domestically—makes a substitute advisable. Lanolin is too high-priced, both for the physician who purveys his own medicine and the one who cooperates with the pharmacist and the patient, in a real effort to avoid expensive prescribing, while always maintaining efficiency.

Thus it was with pleasure that note was recently made of an excerpt from a German pharmaceutical publication treating of the use of whey as a wool-fat substitute. The use of the milk-whey for some time by the writer, indicates that it is a complete success, and notes on the method of use are here given, so that it may be outlined for those as yet unfamiliar with it.

Take a small amount of tragacanth and soak it for a few hours in ordinary whey until it has become a jelly, then work up with more whey until a rather thin jelly of perfect smoothness has been made. Now add any preferred preservative. Alcohol may be used, if desired, only it must be remembered that tragacanth is practically insoluble in this so that it must not be added until solution is completed. Finally, incorporate with about an equal part of petrolatum.

This ointment-base will take up a large amount of an aqueous solution and the whey will penetrate the tissues apparently as well as does lanolin. Of course, the directions will be, to rub in well, the same as with any other base. Cacao-butter or U. S. P. cerate may be added to make a stiffer preparation, when desired. A little practice will surprise one with the ointment possibilities of this.

This recommendation of whey as most excellent and cheap is made by one who is rather strong on "rubbing in" his remedies available for this use, thus not being limited to mercurials and the wonderfully effective lobeline. This, however, is not a treatise on endermic medication; just a hint on whey-jelly.

A. L. NOURSE.

Sawyerville, Ala.

PELLAGRA, AND THE GOLDBERGER THEORY

I awaited patiently the arrival of my June number of CLINICAL MEDICINE, to see what the "family" had to say about pellagra, only to be disappointed, for there was not a word in it about this very important disease. It seems to me that since Doctor Goldberger's declaration that the disease is the outgrowth of faulty dieting or unbalanced rations the "family" and the medical profession at large have accepted this dictum as final and conclusive.

I am still encountering a great many cases of pellagra, and I find them just as unamenable to treatment as before we had Goldberger's pronunciamento. Consequently, I am convinced that the last word has not been said as yet about the cause and cure of pellagra. Let us hear from the CLINIC readers.

A. W. DUMAS.

Natchez, Miss.

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[Doctor, if you will run through the back numbers of CLINICAL MEDICINE you will find that we have never accepted the Goldberger theory as "final and conclusive." It is an interesting hypothesis, and Goldberger advances facts of extreme importance to anyone treating pellagra, yet the theory, in our opinion, fails to explain everything; indeed, is very far from doing so.

We were much interested in an exhibit made by the Post-Graduate Medical School and Hospital at the last meeting of the American Medical Association. In this exhibit there was presented a most exhaustive study of the pellagra problem, based upon studies carried on by field investigators in the south. In a number of communities a complete census of pellagrins was made, and the various environmental, racial, sanitary, dietetic, and other possible etiologic factors were considered with extreme care. It was shown that pellagra flourishes in insanitary communities; that it largely disappears when a city is provided with modern sewerage-disposal facilities; that it apparently is transmitted from person to person and from house to house; that diet does not play such an important part in its persistence or cure as we have been led to believe; that it is readily cured—especially when the patient can be transplanted to a cooler climate; and that, to put the whole thing in a nutshell, it is presumably an infectious disease of alimentary origin.

We must not jump to the conclusion that *this* is the last word. It is only the beginning. But it gives us greater reason for faith in the treatment which we have advocated in the past, and which continues to give good results. Intestinal antiseptics, saturation with calcium sulphide, and arsenic (usually administered hypodermatically as sodium cacodylate), together with skin applications and gargles of picric acid, are the remedies most

generally found of value. *And they are all antiseptics!*

In spite of the preceding I believe in the Goldberger high-protein and scant-carbohydrate diet, but as an adjunct to other measures, not as being sufficient in itself.—ED.]

CULLS FROM A PHYSICIAN'S NOTE BOOK

Money spent in correcting a wrong is a good investment.

In collecting, remember that a debt reluctantly paid is half lost.

Show me the physician who can *cure* a disease. I have never seen one.

Any man who pays too much for his goods swindles his customers.

Of all the "chickens that come home to roost" revenge takes the cake.

The person who tells all that he thinks he knows is named Frank.

Do not urge your friends to follow the good path. Hit the trail and tell them to come on.

Division and defeat not only begin with the same letter, but they are twins.

Self-denial carries away a pint of pleasure only to return with a bushel of real joy.

"Honesty is the best policy" is a rotten proverb. If that be the only motive for honesty, it is a dishonest one.

Just one little seed of happiness sown in some human heart will bring you a splendid crop of huge proportions.

People who say "revenge is sweet" are fooling themselves. It has a come-back that is as bitter as gall.

Wrath is a two-edged sword that has no handle. When you undertake to use it on others you always cut your hands.

Justice can not see very well, but Revenge usually is at hand to tell her where to strike.

Envy and Lust are demons lurking beside the road to Heaven, eager to push you into the gulf of Regret.

Do not think that the book agent is the liar supreme; the diplomat is the smoothest liar that God ever constructed.

Do not be too harsh with an old she-gossip. "The dog that will fetch a bone will carry one." You may use her as a messenger of good.

Sixty-two and one-half percent of the trouble in this world comes from the acts of those who assume to be grand-jury, judge and executioner for those whom they dislike.

A thief is one who steals your cash. An arch-thief is one who steals your good name. The law punishes the thief, but proper and adequate punishment for the arch-thief has not yet been devised.

A. D. HARD.

Marshall, Minn.

HOW I TREAT DIARRHEA

The first thing I have in mind on being called to a case of diarrhea, be it an adult or infant, is, to establish the diagnosis with reference to the etiology of the trouble. Then one's interest in the case may be said to start up with real vigor.

The all important problem of the treatment of any disease, it seems to me, in these days of advance in our noble science, has been obscured a good deal, for the up to date student of medicine, in the overemphasized emphasis of "diagnosis," arrived at by a process of "signs and wonders and fearful things," so that there is danger of the physician becoming merely a diagnostician, when, in sooth, a real physician is an evenly balanced composite creature known as both a diagnostician and clinician. Else he is no physician at all.

I divide diarrheas into two main groups, namely: (a) that of adults, and (b) that of children, including infants.

In adults, I look for one or other of the following varieties:

1. Emotional diarrhea, sometimes seen in men and women who have been under the spell of exciting circumstances. (For instance, "anywhere in Europe"—the zone of war—in these days.) A sort of increased peristalsis, with inflammatory symptoms absent.

Treatment: Remove the cause or let the victim get used to it. The effect will disappear spontaneously.

2. Fatty diarrhea, the result of deficient pancreatic secretion, in consequence of which an excess of fat is found in the stools. Here I prescribe a fat-free diet, as, for example: (1) Lean meat, 300 Grams; toast, 200 Grams; white of egg, 100 Grams; syrup, 90 Grams. (2) Meat, toast, macaroni, potatoes, tapioca, white of egg.

Or, arranged for meals, thus: Morning: Lean meat, 100 Grams; toast (no butter), 50 Grams; coffee au lait (no cream), 1 cup. Later: Albumen-water (from 2 eggs), 1 glass. Noon: Clear soup (no fat); lean meat, 100 Grams. Later: Albumen-water (from 2 eggs), 1 glass. Night: Lean meat, 100 Grams; bread or toast, 50 Grams; rice with milk (no cream), 50 Grams.

3. Diarrhea, with proctitis, in which the stools are frequent but small in amount, con-

taining much mucus and blood and very little fecal matter, and there is much tenesmus.

4. Diarrhea from whatever cause, with which gastric symptoms are associated.

I invariably order rest in bed and a scant liquid diet.

If seen early, the bowels are emptied with calomel in divided doses, followed by a saline laxative. Then, in a few hours, bismuth or zinc and codeine compound or the sulphocarbolates, as indicated, 1 tablet three times a day. H-M-C modified (an old friend of mine), by mouth, for control of severe pain, always.

In children: First find the cause. Since diarrhea is so common in bottle-fed babies during the first or second summer if the surroundings are dirty and the air is vitiated, always look for the specific organism in the stools. In a large percentage of cases, you will find one of the varieties of bacillus dysenteriæ.

I have seen various types of this disease in infants varying from a mild form of indigestion to quite severe forms of acute ileocolitis, both in breast-fed and in bottle-fed babies; and, while occurring more frequently during the summer months, it may occur at any season of the year.

In all these cases, it has been my attempt to change the character of the intestinal flora. For this fundamental idea, I am indebted to the personal advice and work of Dr. Arthur I. Kendall, offered some years ago, when we worked in the laboratories of the Harvard Medical School. The aim must be to displace or change the disposition of undesirable organisms proteolytic in nature, by regulating the patient's diet, so that carbohydrates predominate. Kendall has shown that the bacillus dysenteriæ (Shiga-Flexner) or both the bacillus coli and the streptococcus constitute the usual intestinal microbic flora of babies suffering from bacillary dysentery.

My treatment after the initial laxative is essentially supportive. I say: Feed the child, but see that carbohydrates, preferably lactose, predominate. In consequence, the infecting organisms in the intestinal tract are supplanted by fermentative bacteria, while at the same time you can not be charged with the crime of starving your little patient to death.

I give the requisite amount of water with the sugar and, so, obviate the necessity of making saline infusions. To the lactose-water, given in frequent small amounts, I add Bulgarian-bacillus cultures, in order to increase the lactic-acid content, thus rendering the intestinal tract an uncomfortable habitat for the infecting organisms.

The principle evolved by Kendall, that "fermentation takes precedence over putrefaction"—the first leading to health processes, the latter, to disease processes—has been of tremendous help to me in my everyday practice.

To put it tersely, then: the patient must be put to bed and kept quiet. Then:

"Clean out." Catharsis: Give calomel in divided doses and follow up with saline laxative. Irrigation: Use physiologic saline solution, ordinarily. If a stimulating effect is called for, use a 2-percent silver-nitrate solution until the washing returns clear. The temperature of the solution should be from 98° to 102° F.—the latter if the body-temperature is subnormal.

"Clean up." Change the disposition of the infecting proteolytic organisms, so that, instead of feeding upon the mucous lining of the intestine, they will become fermentative in nature; do this by feeding lactose in aqueous solution, with Bulgarian bacillus added.

"Keep clean." Avoid any food or other condition that will excite the regeneration of putrefactive organisms. Nourish the patient with food, as indicated above, in small amounts, more diluted, and at frequent intervals. Sometimes irrigate.

Here is a summary of the drugs used by me:

1. Calomel in divided doses until 1 grain is taken.
2. An effervescent magnesium sulphate to follow, for complete catharsis.
3. The well-known zinc and codeine compound, for controlling the symptoms.
4. The sulphocarbolates, for intestinal asepsis.
5. H-M-C modified, internally, to control pain.
6. Aconitine, for reducing the fever.

If called in late, in the stage of dysentery, I also use:

7. Atropine with brucine, for collapse.
8. Solution of nuclein, in full doses, to sustain vitality and encourage resistance.

Other good drugs I have sometimes used, as occasion demanded, are: Bismuth subnitrate, bismuth subgallate, and the well-known Abbott antidiarrheal and dysentery tablets.

PHILIP A. E. SHEPPARD.

Dorchester, Mass.

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[This excellent resume will be found help-

ful, I am sure. Other short papers on this topic will be found on pages 611 and following this issue.—ED.]

THE MOSQUITO COUNTRY AND THE MOSQUITO INDIAN

I am an old resident of Spanish-American countries. When I came here, I soon discovered that there are more opportunities in this country – for poor men, I mean – than in any place in the world today; and, so, with the intention of investigating, I have buried myself in the Mosquitia, of the Republic of the Honduras, a district almost unknown to the outside world. The result has been far better than my most sanguine expectations allowed me to hope for; in fact, why this country, so close to the United States, has not been invaded by landseekers long ago is a mystery to me.

This Mosquitia, or Mosquito Coast, extends from Truxillo, in Honduras, along the Atlantic Coast as far south as Bluefields, Nicaragua. This part of the Atlantic is better known as the Caribbean Sea, made famous by the crimes and bloodcurdling deeds of the pirates, or buccaneers, Hawkins, Drake, Morgan, and others, who had their strongholds on this coast and nearby islands.

Perhaps the reason for the country being unknown is owing to the fact that the lands adjacent to the sea are to a great extent swampy and that these swamps as well as the lakes in which the coast abounds afford ideal breeding-places for immense swarms of mosquitoes, from which the entire region derives its name. However, penetrating into the interior only a short way, say, twenty miles, all this changes; the mosquitoes becoming less troublesome, until at a distance of about fifty miles from the coast there are hardly any.

The vegetation of this entire region is extremely rich and varied, owing to the fact that it rains during almost every month in the year, which, also, makes the climate cool and extremely pleasant.

Immense mahogany- and cedar-trees, mingled with rubber- and zapotillo-trees (the latter producing the chewing-gum of commerce), together with palms of various kinds and other kinds of trees, many of them yielding the most delicious fruits, compose the immense forests of this region, while everywhere the banks of rivers and creeks are covered with banana-groves planted by the currents during past centuries. Gorgeous orchids, catleyas, cypripediums, lilies, odontoglossums, and other flowering plants swing their beautiful long-stemmed blossoms in the breeze, while all kinds of flowering lianas and vines, begonias and ferns vie with each other in richness of coloring and grace of form. Brilliantly feathered macaws and parrots fill the air with shrill discordant screams, while a hundred varieties of birds delight the senses with their beautiful variegated plumage and yet others with their song. Several families of monkeys make their homes in the treetops, notable among them being a very amusing little creature with a funny white face and cowl.

As for game – talk about game in a rich tropical jungle where the white man has never hunted and the very few Indians, poorly equipped, hunt only sufficient for their larder. Then there are found here the jaguar, called tiger by the settlers; two kinds of mountain-lion, namely, the Leopardus concolor and Leopardus juagarundi (the latter rather a small chap), the Leopardus pardalis, another spotted cat, and a black, very vicious panther about the size of the jaguar; these certainly make life quite interesting. In addition, I could scare up within an hour at least ten tapirs close to the place where now I am writing.

Deer, two varieties, are plentiful, while the herds of wild pigs, together with the wild-growing bananas, furnish the principal food of the Indians. The paca is highly prized for its fine-flavored meat, and it as well as the agouti, is very numerous. Four varieties of pheasant are at home here, all of the penelopines, the biggest of which is the Crax alector, or curasaw, about the size of your American wild turkey. Further, in December, January, and February, the lakes and swamps are full of wild ducks, coming here from colder climes to a country where they have never been hunted; a veritable ducks' paradise, where food is plentiful and enemies are scarce. However, the musquege duck and several smaller kinds are at home here all the year around.

Do not think, though, that I am hunting all the time; for, although, a lover of the great outdoors, I am not what you may call a sportsman, who kills solely because he has the power to do so. I hunt when I need the meat and that I have always in abundance; but, murdering a wild thing just because I meet it, I do not do, unless it be the alligators, which are rather too numerous for my liking. Fish, of course, is plentiful, and turtles in such numbers that my three Indian boatmen

for illustration, yesterday gathered something like 1200 turtle-eggs in less than four hours.

And in this Garden of Eden live the Mosquito Indians. Though there are three tribes of them, not related to each other, yet, they number very few. Coming up this river during seven days' travel I find only four villages of half a dozen huts each, perhaps a hundred individuals altogether. And away from the river the country is entirely deserted and much of it totally unknown, even to the native Indians.

As I have said, the different tribes are not related to each other, and each has a language of its own. The Payos occupy the territory around Plantain and the Black rivers and the hills south toward Olancho; the Zambos live along the coast from Evans lagoon, along the Patuco River, Caratasco lagoon and as far as the Guanqui River, which divides the republics of Honduras and of Nicaragua; while the Zumos live along some of the lesser streams emptying into the Caratasco and tributaries of the Guanqui rivers. Some of the Payos speak Spanish, but Zambos and Zumos both speak a sort of Pigeon English, besides their own language.

Living along the coast and the great rivers, these latter tribes – that is, the Zambos and Zumos – came in contact with the pirates, whose policy it was to befriend them, as their impenetrable swamps and forests offered a sure refuge for themselves, and hiding-places for their plunder in case of persecution. They also left their imprint in the blood to such a degree that a pure-blooded Zambo is a rarity, while English names are common, as I meet every day Indians calling themselves Wilson, Thomson, Morrison, Smith, and other like names. There is also an admixture of negro blood, doubtless from slaves that escaped from the pirates; for, the Hawkes as well as Drake added to the noble profession of scuttling ships and cutting throats the lucrative one of slaving.

These Indians are polygamous, and I want to call attention to a peculiar custom of theirs, which is interesting from a medical standpoint. It is this:

The Indian will ask the father of a little 6- or 7-year-old to give her to him as wife. This acceded to, the little girl is presented to him and she is advised of the fact that he is her husband and that she must obey him. She stays with her parents, and her new husband sends part of the product of the chase to her home, as well as bananas and whatever he sees fit to clothe her with. He visits her whenever he feels like it, and, although intercourse may not be attempted, he fondles her genitals and induces her to fondle his. Upon my expatiating on the immorality of this proceeding, I was told that this was done to ripen the child quickly into womanhood and make her strong.

As a matter of fact, I have seen extraordinarily strong women among the Zambos. I have known young mothers 13 or 14 years old to carry a load of 75 pounds for 10 miles, besides their babies. I have never yet seen a nursing mother who did not have a superabundance of milk for her baby, and have seen one young woman, carrying 5 bunches of bananas and the milk dripping from both of her breasts with every step. There are women here over 80 years old who are strong and healthy, although badly wrinkled.

The principal diseases are affections of the skin, a species of eczema and ringworm, with which most of them are afflicted. Besides, I find a species of leukoderma, called in Mexico jiricua. This is thought to be infectious, although I am inclined to the belief that it is transmitted by a culex, a little fly that abounds in the tropics. Sometimes the spots are white and extend over the limbs, body, and even over the face in small patches, which may become confluent. This I find is a subcutaneous variety. The other, in which the spots are black or dark-blue, is cutaneous. Pure whites and negroes seem to be immune, for in thirty years I have never seen an individual of either race who nad contracted it.

Sometimes, but rarely, pneumonia is encountered, and more rarely phthisis. Malaria is unknown up here on the Patuco River though prevalent near the seacoast. What kills my Indians, though, is trouble of the digestive apparatus and the intestinal tract, they being tremendous eaters. They have accustomed themselves to do without salt, which is very scarce. Also, sometimes, after a big hunt, they eat meat that is half spoiled, a fact which, in my opinion, also is to be blamed for their skin troubles.

The religion of these people is very rudimentary, and they have no clear conception of what becomes of man's soul after his disintegration. They say that the medicine-man catches the spirit, and puts it away; but where it goes to they do not seem to know or care.

The medicine-man, or suquia, is a great fellow among them. They are divided into two classes, the doctor and the suquia, the latter attending to spiritual matters. The doctor's methods do not materially differ

from those of his fellows in Africa, using native herbs, decoctions, and incantations. So, I will pass them by.

However, the suquia proper, the spiritual medicine-man, is the one who directs all the peoples' affairs, not because he holds any recognized authority, but by working upon their superstition. The suquia sends word that during such and such a month nobody must eat the flesh of this or that animal, and none will eat it. The other day, a courier came from the Caratasco district, where a famous suquia lives, bringing word that on a certain day a tremendous storm would sweep over the country and destroy villages, rice-fields, forests, and game, unless every Indian in the country would send one dollar, in which case he would use his influence to avert the disaster. Every Indian in my district sent in the dollar, and – he did prove himself a tremendously powerful medicine-man, indeed, for, in place of the storm, we had a most beautiful day. Was it not worth the dollar? one Indian friend asked me

But it is in a case of death where the great suquia shines. After the body has been buried, it is supposed that the spirit still haunts the place where he used to live, and every day food is served to him just as if the departed were still present. In the evening, the food is thrown away. When I inquired the reason for this, I was told that the nourishment in food was invisible and that the invisible spirit had taken all the nourishment out of it, so, what was left was not any more fit for use. This feeding of the spirit is persisted in until the suquia makes his appearance and the spirit is caught by him and put away.

It takes a great deal of supplication to get the suquia to consent to come. Of course, there are conditions to be complied with. Already the medicine-man has discovered that on a certain day wild-hog meat is bad medicine, but pheasant and deer are good medicine. Domestic chicken is good medicine, sometimes, and sometimes only paca or fish is to be eaten. Several barrels of chicha must be there. The latter consists of the fermented sap of sugar-cane and is very intoxicating.

The day set for the ceremony sees a motley crowd of Indians assembled who already have tasted of the barrels of chicha and are dancing to the sound of the tom-tom until the arrival of the suquia. In the evening, the real ceremony begins, when the suquia enters the dance, chanting in a low voice in the language of the spirits, which none of the bystanders may understand. After a while, he will translate his conversation to those present, imparting to the relatives the spirit's last wishes or commands. For instance, the spirit has left on his plantation 100 coconut palms, and these must all be felled. The house he had lived in must be torn down. If it is a woman, her sewing-machine (they use sewing-machines) must be broken up.

Sometimes, though (with an eye to the food supply), the spirit will not be caught the first night, because he or she was at outs with some member of the family, and then the ceremony is repeated until the food is nearly gone. Then the spirit at last is caught carefully wrapped in a piece of cotton batting and taken by the medicine-man to the grave where it is deposited and admonished to go to the place where spirits belong, and never to return. That ends the ceremony and everybody, especially the relatives, feels relieved of the obligation of feeding the invisible spirit, and the money the suquia carries away with him.

What a chance, here, for missionaries! especially as the Indians greatly wish to become Christians. Already they are imitating the white man by baptizing their children. They do not know the meaning of it, but they will call in anyone to do it for them, preferably a white man, because he says certain words the Indian does not know and which must, certainly, be good medicine. I have told them that I would try and get some holy man to come out and teach them, and they are as pleased as children with the idea.

The government of Doctor Bertran (the president of Honduras) has been trying to lift up these children of nature and in a few places has established schools lately. The teachers tell me that they are surprised at the intelligence of the children, for they learn and absorb wonderfully quickly. But it is not only the intelligence in which they certainly are not lacking, but their respectfulness, their obedience and their orderliness are something wonderful. No harsh word is spoken to them, for none is needed; and although school is conducted in grass huts, they might well be called model schools, considering the quality of the pupils.

The Indians themselves are very docile and amenable to reason, as I had especial occasion to verify yesterday. A young woman, married in the manner already stated, seems to be in love with another young fellow and the other day ran away from her husband – she and another girl, who, however, is not

married. When the two found that they were pursued rather closely, they left their boat and took to the jungle. The pursuers were the irate husband and the two brothers of the girls, who, indignant because of the disgrace brought upon them, intended fully to mete out exemplary punishment to both. The girls escaped, however, and were not heard from anymore, as the jungle is almost impenetrable.

Day before yesterday, I was rather astonished when, like two dusky nymphs, the girls appeared before me, having swum the river, braving the danger of hundreds of hungry alligators, to come to the white man, who would respect and protect them. I gave them some tunos (a cloth made by pounding the bark of certain trees), to cover themselves, and turned them over to my old cook. They told me that they were afraid that their brothers and husband would shoot them like tapir and that they had lost all their extra clothes in the boat, while the rest had been torn off their bodies by the thorns and brambles of the jungle.

Yesterday the pursuers arrived, looking, though, as if they were ready to kill. After having made them eat with me, I told them about woman's feelings and sentiments, and that, by respecting these and conceding to them rights, the white men, who formerly were like they are now, had risen to their present eminence. The men listened very respectfully and were mollified to the extent of promising that the girls should not be punished for their escapade. By the expression of the girls' faces, I knew that they meant what they said. So, I told the girls that, if they thought they were not safe, they might stay, as I could employ them; however, they went along willingly, even happy that their trouble was over.

What a field this for a Christian Mission! How could I manage to get some such—of the right kind to come down here? I, with my Indians, am willing to build for them a chapel and to plant at least 10 hectares (25 acres) in cacao, which when bearing, means a steady income of from 3,000 to 10,000 dollars a year. All I ask for in return is, a resting-place for my wife's body and for myself.

This is a *bona fide* offer. There is plenty of room for other decent and clean people with small capital. Land that on account of its fertility would be worth in the United States $500.00 or more per acre can be had for nothing here. There are two ways to obtain land in these parts: one, by purchase from the government at $1.00 per acre for the best, while the other way is by lifelong tenure or rental, for which is paid yearly 10 cents per hectare (2 1-2 acres) as long as it is not cultivated, and 5 cents yearly when cultivated. There is no tax on land. Besides this, the surveyor must be paid at the rate of 20 cents per acre; only, the amount of land must comprise several thousand acres, as otherwise the government surveyor will not come down.

Many crops can be raised that will be good moneymakers, but the best is Cacao theobroma—cocoa, I believe you call it. Once planted, there is little work to it, and after it comes into bearing, five years from planting, the income is steady and always increases. Besides the shade-trees which the cacao needs as protection, one might plant mahogany or cedar, which, although not readily marketable, will give an added, and not mean, value to the land itself.

I'd like to get some neighbors, and I am willing to help any honest man or woman all I can. You, doctor, who barely can make out a decent living, here is a chance for you. But not only the doctor, but the friend of the doctor, also, anybody who is clean and decent. Owing to its situation, the Mosquitia has never seen a revolution, and, if I can manage to get only foreign colonists here, there never will be. The country is easy of access, as the rivers are navigable and steamers have access to the mouths of these rivers. Hence we can do without railroads.

So, then, come, friends, and let us form a colony of nice educated people. The greater the number, the more will the land be worth.

I won't have anything to do with a stock company, though. Get up a collectoin for a tired brother who needs a vacation and send him down to investigate and then believe him and follow his advice. If he is a farmer's son, so much the better. Don't wait until corporations take your chance from you, Write me to the address below.

A. R. HOLLMANN.
In care of Laffite, Alvarez y Cia.
La Ceiba, Sp. Honduras.
Via New Orleans.

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[Doctor Hollmann's account is very interesting and, shall I say tempting? To the lover of nature at her best, such as the doctor describes her handiwork in his beautiful corner of the world, his offer presents all sorts of inducements!—ED.]

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, *A. M., M. D.*

[*Continued from page 546, June issue*]

THE girls themselves, through lack of a knowledge that should be given to all, aggravate their own plight by a sacrifice to good looks. The corset, which is believed to be necessary to preserve a good figure, is laced so as to exert a forced pressure from the waist downward—just where there should be upward support, instead. This is not all, by any means, but there is no need to be more specific. Pretty much everything about the whole situation is wrong.

If ever the application of corrective and preventive measures was wanted, it is here. The shop-girl is a far more deserving object for missionary effort than are the heathen of distant lands. But, in this respect, she has the disadvantage of being close at hand instead of on the other side of the world. I do not mean that the shop-girl requires religious rescue, by exhortation, tract or other means. That has nothing to do with those needs that cry out for help as a part of the progress of the hour, in these days of enlightenment and aggressive hygiene. The moral aspects may be left to other hands; the physical, however, are open to the world and should be cared for, not alone because of the present, but for the sake of future generations; and no broad measure of any kind is complete which does not take into account another, and larger, population, marching now toward us irresistibly out of the nearer depths of time.

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I cannot too strongly advise and commend all who have, at least, the health and general good of the whole public at heart, now and to come, to communicate with the officials of that society. The work and the way to do this will be clearly pointed out.

Human possibility holds out no higher or more worthy thing than helping the helpless or showing the unhelped how to help themselves. Those who would convert sympathy and altruistic impulse into telling action have here their chance.

In order to avoid the danger of excessive fatigue, sleep is indispensable, but there are other ways of securing rest. Some temperaments derive much benefit from occasional periods of complete idleness, other temperaments more nervous and restless get no satisfaction from being idle. Continuous application to one form of work is much more fatiguing to nerve and muscle than varied work. I have seen business men and students come to the gymnasium, all fagged out from five or six hours of mental work, get into various forms of muscular work with zest and energy. In a model boys' school famous for the rapid progress of its students, the boys alternate periods of study with short periods of active play. The principle involved here is that, by changing from mental to physical work or from one form of mental work to another, the individual is able to accomplish a larger amount of work with less fatigue than by working continually at the same kind of work.

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One of the most salient characteristics of modern life is, the increasing amount of leisure time for recreation made possible by the shortening of working-hours. The advent of specialization, labor-saving devices, the telephone, telegraph, and automobile make it possible for all classes of people to do more work in less time than before. But work is more intensive and consequently more fatiguing. The result of these changes is, a greater need for relaxation and more time available for recreation and pleasure. The proper use of leisure time has much to do with health, efficiency, and happiness.

Play is generally considered as belonging to childhood only, but it is really a vital part of life at all ages. The need for play and recreation is satisfied in various ways. Sedentary workers derive the greatest benefit from outdoor physical recreation, such as golf, tennis, fishing, hunting, collecting, and photography. Leisurely reading of the treasure stories of literature, music, and parlor

games also afford a certain amount of mental relaxation to daily work.

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The outdoor avocation or hobby has more in its favor than any other. It is readily procurable in "doses" suitable to any temper or temperament and adjustable likewise to the size of any pocketbook. The essential point with most persons is to make a beginning and acquire a desire for acquaintance with the birds, familiarity with the procession of the wild flowers or the discovery of beautiful bits of scenery that may be reproduced by the camera.

Many people who realize the importance of outdoor recreation neglect it, because they have not formed the habit of making use of weekends and holidays for this purpose. There are innumerable ways of getting the benefit of outdoor recreation while leading an active city life. Even in New York City, where the conditions are perhaps the least favorable for getting out into the country easily, the problem is solved in various ways.

There is a group of professional and business men who are organized in a fresh-air club; they make up a schedule of walking-trips during the autumn and spring and skating parties during the winter. They meet at the railroad-station Saturday afternoons, ride out ten or twenty miles from the city, walk five or ten miles across the country or up a mountain, spend the night at some country inn, walk ten or twenty miles on Sunday, and return Sunday evening, invigorated and ready for another week of hard work.

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Another group of friends go off in a motor boat, either up the Hudson River, down the Bay or into Long Island Sound, eat and sleep aboard and return Sunday evening. Two teachers of my acquaintance spend Saturday afternoon and Sunday canoeing up the Hudson and camping out at some of the many beautiful spots along the palisades, between New York and Peekskill.

In the vicinity of every city, opportunities for physical recreation are available in the open country, woods, hills, lake or stream. A very essential point to remember in this connection is, that frequent periods of outdoor physical recreation are far more beneficial to persons working under high pressure than one whole month's vacation following eleven months of continuous application.

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Frequent outings in the country are not only beneficial to physical health; the effect upon the mind is at least equally good. The mind is rested and refreshed by a change of surroundings, seeing new faces, eating different food, sleeping in a strange bed. The worries and troubles are forgotten and the mind regains its elasticity and freshness for clear thinking and efficient work.

Weekends and occasional holidays serve a good purpose, but most of the people need a longer period of rest and vacation about once a year. Those who disregard the need for an annual vacation and work continuously year after year furnish the recruits for nerve-specialists and sanitariums. A story in the newspaper, describing the strenuous life of a young man twenty years old, who, by continuous application without any vacation, had earned his election to the presidency of a large New York bank, brought him a large number of circulars from sanitariums for neurasthenics. The rapid development of the summer-vacation idea in recent years is the natural result of the increasing demand for intensive mental application in business and professional life. The judicious use of the summer vacation serves to restore the individual to a normal physical and mental state after months of more or less unhygienic living.

Camping, cruising, touring, and tramping afford the largest amount of recreation and recuperation to tired-out mental workers.

Summer-hotel life, with its idleness, rich food, and much dressing, also strenuous traveling and sight-seeing are not a desirable form of vacation for sedentary workers. A simple, active outdoor life in the country or on the water is far better to restore vitality, revive ideals, and help the individual to live a broad, happy, and effective life.

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Now, while Europe is at war and the United States is talking of preparedness, it is well to remember that the real fight of the world is for health. This is a struggle not confined to any one nation. Disease is a common foe. It is a humanitarian motive, as well as a scientific one, that should animate physicians in all their deliberations.

There is in human nature a desire for conquest that ever has been a constant driving force in human endeavor. The soldier strives to overcome an attacking foe. The civil engineer conquers the hard conditions he meets in driving a tunnel through rocky walls. The inventor and the scientific investigator wrest away from nature its secrets. The moral reformer and the theologian seek the subjugation of moral evils. And it is the

duty of the physician to attack the most subtle of all foes, the minute and elusive causes of diseases; and every such conquest gives inspiration for further battle in the world's fight for health.

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It is our duty as physicians to break down the barriers of ignorance and prejudice that are ever undesirable deterrents of progress in social welfare. The common purpose to conquer disease and to make human life safer, healthier, and happier is a factor in bringing peace in the world, because the nations of the world become banded together in common sympathies and endeavors.

We must sympathize with the sufferings of mankind. Unless we think humanely, we shall not be able to give our best to this work. This conception of our duty indicates the passionate devotion that has ever been the driving force of those who undertake great things for human welfare, whether in the name of religion or of science.

The problems of health and hygiene are largely social. They are the results of the close social living-relations of humanity. Man is gregarious and his desire for companionship is stronger than his power to protect himself from the undesirable results of living at too close a range. In developing these gregarious habits, society has rarely asked itself whither these habits are taking it. Disease, it has been assumed, as a matter of course, must be cured, if possible, but, that society has in itself the power to prevent much of disease, by repenting of its past slothfulness and *laissez faire* attitude and by organizing on lines of prevention and protection, is a realization of comparatively recent origin.

One task of the medical profession is, to overcome the inertia of years that has developed by inattention to the laws of health, and to awaken a sense of individual responsibility. A public understanding, growing in its intelligence and moral earnestness, must be a prime factor in achieving success. It is not solely a question for specialists—the interest of the people and their cooperation are necessary to this end.

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In nearly every large city, there are now public-welfare communities or societies that are mainly educational. Much work is being done toward reducing infant mortality. Of great benefit is the teaching of mothers the right way to modify or prepare nursery-milk for infant consumption and to make them realize the importance of maternal nursing, the greater chance for life that the breast-fed baby of the poor woman has over the child of the well-to-do when nourished in any other way but the natural one.

Mothers must be shown the important and wonderful reduction in infant mortality that can be secured through properly conducted attention to child hygiene, and the tremendous and national significance of this fact. That the results which can be secured are well established and certain, is shown by such work wherever it has been undertaken. It is the duty of municipalities to take over the work, as only by the public and city-wide administration of this problem can the fullest results and permanent benefits be secured. Private funds should be used only to show the way.

The New York City board of health spends $350,000 a year on milk-stations and on infant hygiene, which is looked after at some fifty stations. Chicago, I believe, and Cleveland, Milwaukee, and perhaps other cities have special child-hygiene departments in connection with the board of health.

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There are certain evils which are a more serious menace to the welfare of communities than are typhoid fever or other contagious diseases. What has been but too aptly termed the social evil has long been the theme of earnest consideration on the part of men and women whose aim has been the purification of the moral atmosphere of their respective communities. The best-intentioned people differ radically with regard to the methods to be pursued.

The Municipal League of San Francisco, the offspring of the clearing of political atmosphere which had cursed that beautiful city under Schmitz and Ruef, has won golden opinions for its clearsighted policy on many important municipal problems. In accordance with the modern principle that vice and crime are manifestations of disease or degeneracy of mind and body, either inherited or acquired – chiefly the former – the league has set an example worthy of thorough investigation by philanthropists and municipalities.

A plan of action has been evolved under which the unfortunate victims of vice are treated precisely as are those having smallpox, diphtheria or other contagious disease. Not only are their physical ailments treated in the clinic, but their moral infirmity receives kindly and properly directed attention. The source of the malady is sought in the patient's environment, and an earnest and practical attempt is made to remove the cause, as is

done by health-officers in the case of, for instance, measles or scarlet-fever. A close study of the work done along these lines by the municipal league mentioned doubtless would furnish much valuable information, on this important hygiene subject, to philanthropists and municipalities contemplating similar action.

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Not long ago, an English physician predicted that the face of the average Englishman would eventually become of a criminal type. This, he held, would follow through the decline of the birth rate among the better classes and the accelerated reproduction of the lower types. I have read other gloomy prophecies of national degeneracy through the operation of heredity and I recently came across an issue of *The Quarterly Review*, in which a Doctor Tregold makes this prognostication:

"The time will certainly come when every state, in its own interest, will have to exercise some control over the condition, not only of its present, but of its future citizens. If this control is not exercised and if social science does not keep pace with humanitarian sentiment and the undoubted tendencies which exist to aid the survival of the degenerate, the decay and extinction of the nation that neglects it is inevitable."

Many people are of the opinion that alcoholism, feeblemindedness, and like ills are congenital defects, and the remedy is believed to lie in preventing reproduction by those afflicted with inherent degeneracy.

But all reckless predictions regarding steady national deterioration into a degenerative type may be safely discarded. Much foolishness is uttered in the name of science. As to the relative parts played by heredity and by evil social conditions in the production of the mentally and physically unfit, there is no clear line of distinction. One is interrelated with the other; and undoubtedly no action in respect to either would, if taken separately, reach to the vital center of the proplem. Obviously any general system of prohibiting reproduction by defective men and women would be of little use as a preventive of degeneracy or unfitness as long as bad housing, neglect, poverty, the drink-evil, and many other contributions to human breakdowns continue to operate.

Only pedants ignore the fact that no real elevation of race standards can take place without a corresponding betterment of social conditions for the masses. As a matter of duty, the state ought to supervise the care of all its weak and defective citizens, and its responsibility to them could easily be made to justify their segregation in colonies where reproduction of their kind would be impossible. But this is a humanitarian matter, not one of eugenics. An ideal society is one in which there are no weak members, no degenerates, and no mental deficients. But such an ideality also presupposes a society in which ignorance, poverty, crime, and low morality are absent.

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For over ten years I have had much to do with hydrotherapy. I have some very decided opinions on the effects of baths, these being based upon close observation and quite an extensive experience. But every time I listen to a bunch of wouldbe authorities on this subject I am reminded that knowledge is elusive. It is exceptional when the essayist escapes without causing an argument or being flatly contradicted.

It is not given to common mortals to comprehend the merits of these questions, much less to take sides in the inevitable controversy. We may fail to grasp the importance of such a thrilling performance as that of the bacteriologist who claims to have reproduced malaria-germs to the fourth generation, as one would raise chickens. We may be duly shocked by such "data" offered by the sanitarians, showing that "probably" fifteen million babies die in their first year of life; that the world's infant-mortality rate is one every other second. But, after a recent experience of mine, I should hesitate to enter into a discussion of what to do about it. If the "authorities" cannot agree, an ordinary doctor, such as I am, need not deplore his seemingly feeble intelligence.

Curiously enough, one subject with which many of us profess tolerable familiarity perplexes the world's hygienists as much as anything. That is baths. What is a bath? "Bathing may be defined as the act of applying water to the skin," we are informed by one versed in hydrotherapy. After this, we should feel sure of comprehending what follows. Unfortunately for this confidence, the bath, physiologically speaking, by no means is a simple proposition; or, if it is, the scientists won't have it so. When water is applied to the skin, what happens? A large number of learned doctors – many of them authors of worldwide eminence – debated this question excitedly at a certain meeting. It appeared that nobody quite knew; or, if anybody claimed to know, somebody else was prepared to take the negative.

Among the Books

NEW EDITIONS OF OLD BOOKS

When new editions of well-known textbooks are published, it hardly seems necessary to do more than to call attention to the fact, unless the new editions present some important changes. Accordingly, we acknowledge in the following a number of volumes, the value of which is attested by the fact that new editions are called for.

"Orthopedic Surgery." By Edward H. Bradford and Robert W. Lovett. Fifth edition. New York: William Wood & Co. 1915. Price $3.75, net.

"Textbook of Nervous Diseases; for the Use of Students and Practitioners of Medicine." By Charles L. Dana. Eighth edition. New York: William Wood & Co. 1915. Price $4.25, net.

"Medical Lectures and Clinical Aphorisms." By Samuel Gee. With Recollections by J. Wickham Legg. Fourth edition. London: Oxford Medical Publications. 1915. Price $2.00.

These delightful wanderings in the highways and bypaths of medicine and of medical history are decidedly worthwhile.

"Sexual Impotence." By Victor G. Vecki. Fifth edition, enlarged. Philadelphia: The W. B. Saunders Company. 1915. Price $2.25, net.

"Venereal Diseases: A Manual for Students and Practitioners." By James R. Hayden. Fourth edition, thoroughly revised. Philadelphia: Lea & Febiger. 1916. Price $2.50.

"Diseases of the Stomach and Upper Alimentary Tract." By Anthony Bassler. Third edition, revised and enlarged. Philadelphia: The F. A. Davis Company. 1916. Price $6.00.

"Lecture Course to Physicians." By George Starr White. Fifth edition. Los Angeles: Published by the author. 1916.

"Treatise on the Principles and Practice of Medicine." By Arthur R. Edwards. Third edition, thoroughly revised. Philadelphia: Lea & Febiger. 1916. Price $6.00.

"Practical Physiological Chemistry." A book designed for use in courses in practical physiological chemistry in schools of medicine and of science. By Philip B. Hawk. Fifth edition, revised and enlarged. Philadelphia: P. Blakiston's Son & Co. 1916. Price $2.50.

"Reference Handbook of the Medical Sciences." Embracing the entire range of scientific and practical medicine and allied science. By various writers. Third edition, completely revised and rewritten. Edited by Thomas L. Stedman. Volume VI. New York: William Wood & Co. 1916. Price: cloth, $7.00; leather, $8.00; half morocco, $9.00.

This reference handbook will be complete in eight volumes.

SOME BOOKS FOR THE FAMILY

Here is a small list of books that are intended fully as much for intelligent mothers as for physicians.

"What Every Mother Should Know"—about her infants and young children. By Ch. G. Kerley. New York: P. B. Hoeber. 1915. Price 35 cents.

This little book may be placed in the hands of mothers of moderate means and is intended to provide them with concise, readily understood and practical instructions for the care of their little ones.

"Infant Health: A Manual for District Visitors, Nurses, and Mothers." By J. (Shawnet) C. MacMillan. Oxford Medical Manuals. London. 1915. Price 75 cents.

William Osler says in his foreword to this "Manual" that it is full of sound knowledge and common sense and could well be put into the hands of intelligent mothers.

"Your Baby: A Guide for Young Mothers." By Edith B. Lowry. Chicago: Forbes & Co. 1915. Price $1.00.

On the principle that the education and care of the child should begin generations before its birth, the author does the best she can, and, so, starts with the present generation, by endeavoring to impress upon the mind of the young wife the great importance of training her own self for motherhood and also of beginning to train her baby as soon as she becomes aware of the fact that she is to become a mother. The necessity of medical care during pregnancy as well as after delivery very properly is insisted upon, and

almost one-half of the book is devoted to what one might designate as the preliminaries. Concerning the care of the baby itself, the author attempts to teach the doctrine of applying common sense and of exercising moderation. This little volume is certain to prove of service to young women; and to old women, too—if there are any.

PATERSON: "EMBRYOLOGY"

A Manual of Embryology. By A. Melville Paterson, M. D., F. R. C. S. Oxford Medical Publications. London: 1915. Price $2.75.

The study of human anatomy is undoubtedly made more interesting by a concomitant investigation of comparative anatomy and embryology; indeed, the author is justified in claiming that most of the problems of human anatomy can be solved by the aid of these subordinate sciences. An exact study of human anatomy, which is prerequisite more particularly for the surgeon, is therefore properly supplemented and facilitated by that of embryology. The author presents the salient facts of this science in the volume before us.

KELSON: "DISEASES OF THE THROAT, NOSE AND EAR"

Diseases of the Throat, Nose and Ear. By William H. Kelson, M. D., B. S., F. R. C. S. (Eng.). Oxford Medical Publications. London: 1915. Price $3.00.

This book has been written for general practitioners and senior students, and therefore contains full details regarding procedures such as the doctor himself usually undertakes, e. g. the removal of cerumen; but to those which he generally passes on to the specialist, such as the mastoid operation, only brief reference is made. The book is fully illustrated.

PAGE: "AUTOMOBILE REPAIRING MADE EASY"

Automobile repairing made easy. Shop methods, equipments and processes. A Complete Treatise Explaining Approved Methods of Repairing All Parts of All Types of Gasoline Automobiles. Showing all the Latest Developments, based on a Wide Actual Repair Experience. By Victor W. Pagé, M. W. New York: The Normal W. Henley Publishing Company. 1915. Price $3.00.

Being entirely innocent of the slightest knowledge of automobiles and similar contrivances for making haste (slowly?), the reviewer "passes," contenting himself to give the full title of the book. The work itself seems to be just as full as the title, to judge from the 1033 pages of text and 27 pages of index.

ASCH: "TREATMENT OF GONORRHEA"

Twelve Lectures on the Modern Treatment of Gonorrhea in the Male. By Dr. P. Asch (Strasbourg). Translated and Annotated by Faxton E. Gardner, M. D. Illustrated. New York: The Rebman Company. 1915. Price $1.00.

This small, but practical treatise on gonorrhea in the male is of interest because it presents the teachings of the French and German schools, and because the translator has been at pains to point out the different views of American authorities, wherever it is of value to do so. The treatment advocated by the author is that which he has found most useful in a personal experience extending over fifteen years of special practice.

The translation is well done, throughout, and the reviewer knows from strenuous experience what it means to translate scientific treatises; nevertheless occasional evidences of the original construction persist such as "the therein contained gonococci" or "I prefer to have the patient inject too little than too much," and a few similar passages in which the task of translation was evidently hastened. This does not however, detract from the intrinsic merit of the work.

BERKELEY AND BONNEY: "GYNECOLOGY"

A Guide to Gynecology in General Practice. By Comyns Berkeley, M. A., M. D., M. C. (Cantab.), F. R. C. P. and Victor Bonney, M. S., M. D., B. Sc. (Lond.), F. R. C. S. (Engl.), M. R. C. P. (Lond.). Oxford Medical Publications. London, 1915. Price, $6.50.

This book is written for the practitioner, to assist him in supplementing the academic knowledge of the subject acquired during studentship with a practical understanding of its clinical intricacies. The subject-matter is arranged in five parts, the first of which deals with the examination of the patient, while the second and third parts are concerned with the nature and significance of the symptoms elicited on examination, and with their interpretation. The reviewer is impressed with the practical and serviceable

manner in which the different symptoms are discussed and elucidated. Part IV is devoted to the treatment of gynecological conditions, and it should be remarked that the authors have deliberately omitted all details of operative technique from this part, referring for information on surgical gynecology to textbooks on the subject.

A valuable addition to this work is found in Part V, in which the medicolegal aspects of gynecology are subjected to a sufficiently detailed investigation to prove of service to the practitioner.

The illustrations are well drawn, and mechanically the volume is in conformity with the excellency usually shown in the publications of the Oxford Press.

CAREY: "BACTERIOLOGY FOR NURSES"

An Introduction to Bacteriology for Nurses. By Harry W. Carey, A. B., M. D. Philadelphia: The F. A. Davis Company. Price $1.00.

At the present day, the need of a certain amount of information in bacteriology for nurses is self-evident. The difficulty is only to determine how much of this information is to be given. The author has prepared the present volume on the basis of his notes for lectures given, on the subject, during the last eight years in teaching the nurses of the Samaritan Hospital Training School. He presents the principles of bacteriology in simple and clear language. Practical applications are made, of course, in so far as the subject bears upon the clinical work of the nurse. A useful glossary of technical terms is appended.

ROBINSON: "LIMITATION OF OFFSPRING"

Fewer and Better Babies, or the Limitation of Offspring by the Prevention of Conception; the enormous benefit of the practice to the individual, society and the race; pointed out and all objections answered. By William J. Robinson, M. D. With an introduction by A. Jacobi, M. D., LL. D. New York City: The Critic and Guide Company. 1915. Price $1.00.

With this somewhat lengthy title, the author announces his work which forms, as it were, a culmination and climax of his persistent agitation and literary activity for many years past. Not that Doctor Robinson limits his literary contributions to the subject dealt with in the present volumn; but he is well known to our readers as a fearless advocate of the principles laid down in it.

The reviewer does not feel justified in entering at length into the subject-matter of the book in this place; he hopes to do so in another connection. On the other hand, he does not believe it right to withhold announcement of this important book until a more convenient time. The subject is too urgent for that. So it may suffice for the present to inform our readers that this volume from Doctor Robinson's pen has appeared. The author is a forceful and trenchant writer, and one writing with authority on the topics connected with his special field of work. Let "the family" read his book.

STERN: "BLOODLETTING"

The Theory and Practice of Bloodletting. By Heinrich Stern, M. D., LL. D., New York: The Rebman Company. 1915. Price $2.50.

Whoever has devoted some attention to the periodical literature on bloodletting knows that in the last ten years the number of advocates of this remedial procedure has increased and that of its opponents decreased. The revival of bloodletting for therapeutic purposes is due merely to a better understanding of the functional changes following the operation, to a closer clinical observation of the cases subjected to it, and to the fact that the efficacy of this method over many other measures has frequently been demonstrated and recognized. The author predicts that bloodletting, the oldest of man's remedies, will regain its full citizenship in the realm of therapeutics.

MITCHELL: "HOSPITALS AND THE LAW"

Hospitals and the Law. By Edwin Valentine Mitchell, LL.B. New York: The Rebman Company. 1915. Price $1.75.

The purpose of this volume is, to supply a short analysis of the general propositions of law relating to health institutions, and to make it readily comprehensible to those who are professionally or otherwise interested in such establishments. The author discusses concisely the rights and responsibilities of institutions, of their officials and attendants; also the principles regulating their administration. Then he takes up the questions of foundation and organization, of remuneration and support, and the like, and finally deals with the subject of military and naval hospitals. A useful volume.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Queries

QUERY 6213.—"Cerebral Anemia and Arteriosclerosis." J. A., Ontario, asks for our opinion and advice concerning the case of a farmer, 77 years of age, who suffers from periodical "spells" of unconsciousness, associated with distress, flushing of face, and nervousness. The blood pressure is 180, systolic, 70 diastolic. There is a mitral systolic murmur, transmitted to the right and to the center of the sternum. His pulse is 78, regular, usually of considerable tension. He complains of a peculiar feeling in the head, and of spells of dizziness. The doctor suspected cerebral hemorrhage and treated him accordingly The 24-hours' amount of urine voided is only 587 Cc.

The report from our laboratory shows that the urine has a specific gravity of 1.033; total solids, 45 grams; total urea, 18 grams; also that it contains a few renal cells, a few crystals of calcium oxalate, and very many colon-bacilli.

We believe that this man suffers from attacks of cerebral anemia coupled with some arteriosclerosis; which is not unusual in a man 77 years of age. The blood pressure does not suggest cerebral hemorrhage, being too low for this. With a tendency to hardening of the arteries, associated with a mitral insufficiency, attacks of cerebral anemia would not be astonishing. It will probably be found that these attacks occur more particularly after indiscretions in diet and the patient should be especially warned against committing such.

After full elimination has been established, it must be maintained, more particularly with respect to the urea output. Regular habits of eating and moderation in work are indispensable. We should give this man boldine hydrobromide, say, three granules of 1 : 64 grains each, three times daily. A cardiac tonic, preferably strophanthin, will be of value for its action on the heart, while veratrine will aid in establishing the circulatory equilibrium. If strophanthin does not produce results, we should advise digitalis (as in the form of digipoten) or, even better, the following combination: digitalin, gr. 1-128; strophanthin, gr. 1-5000; strychnine sulphate, gr. 1-500; sparteine sulphate, gr. 1-64; glonoin, gr. 1-500; cactoid, gr. 1-128. Such a dose (in tablet) to be taken every four or six hours.

QUERY 6214. — "Traumatic Inguinal Hernia." W. F. S., Indiana, submits the history of a case of inguinal hernia and asks for expressions of opinion and for reports of similar cases. The Doctor writes:

"A man of 47 years, well preserved, occupied in the collection and reporting of local commercial retail conditions, came into my office and said that he had just come from the bath-house, where, after undressing and starting for the swimming-pool, he slid his right hand along the groin, to cover the privates (a habit, quite common, born of false modesty), and then discovered a large, soft tumor, but felt no pain connected with it. He wanted to know what it was and asked me to give any needed attention. He was unable to recall any incident that might have produced the injury. Following my advice, he returned on the morrow for further treatment, and then gave the following history.

"The man had been annoyed by retention of his urine and was taking treatments by a local surgeon, who had diagnosed stricture of the neck of the bladder. At each treatment, a curved steel sound had been introduced into the bladder and rotated, with application of leverage, the tip of the sound touching at different portions of the bladder-wall. During one treatment, this use of the sound caused extreme pain in the right inguinal region, and soreness followed. The man was assured by the physician that it

meant nothing serious and that the pain would soon disappear. At the succeeding treatments, he had refused to allow the employment of leverage, because of the pain produced. His surgeon at that time had left the city for a short stay, so that, alarmed at his discovery of the tumor in the groin, he came to me for advice.

"All this was told without any perceptible shadow of ill feeling toward his medical attendant, nor has he evinced any such sentiment at any time since. The man ended by asking me the question which I am making mine, also; namely:

" 'Could the bladder-wall have been carried into the inguinal ring by the sound and cause sufficient injury to produce hernia, yet, not be ruptured?'

"I told him I had never heard or read of a hernia being produced in such a manner. I have not found any report or essay suggesting such a probability as a cause of hernias; still, I do believe that it was the cause in this instance."

This problem was submitted to Dr. Benjamin H. Breakstone, of Chicago, who very kindly submitted the following reply:

"With reference to the inquiry of your correspondent, the data supplied are not sufficient for forming any definite opinion. However, from what is told, I am not satisfied that the patient has inguinal hernia at all. If the swelling is owing to injury from the bladder, he certainly should have bladder symptoms. I am satisfied that the manipulations of the bladder had nothing to do with the cause of this supposititious hernia; for, if sufficient force was employed to produce a hernia there, there undoubtedly would be severe bladder symptoms, while the bladder-wall would have been injured sufficiently to give rise to a leakage of urine, either into the abdomen or into the fascia.

"Many hernias come on in an imperceptible manner, especially in patients who are run down and weak or who suffer from asthma or cough, and then the abnormality is only accidentally discovered. Quite frequently a hernia will be produced during excitement or during physical exertion, and then is not discovered accidentally until some time later."

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QUERY 6215.—"Cyanide-Poisoning." H. M., Ontario, Canada, has a patient, a young man working in a cyanide-mill, with good previous health, who for the last three months has been complaining of general malaise, furred tongue, slight constipation, and dryness of the throat. His lungs are not affected; his heart is normal, but beats 110 per minute; his temperature registers 101 degrees. He complains of a vague pain in the chest and thighs and of general weakness of the limbs; he has lost weight. Previous venereal diseases are denied. The Doctor suspects cyanide-poisoning, but has not been able to relieve the symptoms or to arrest the trouble.

We submitted the Doctor's query to Dr. Alice Hamilton, of Chicago, who has specialized on occupational poisonings, and she kindly informs us as follows:

"The symptoms of true cyanide-poisoning are rather vague. Von Jaksch, in his work, 'Die Vergiftungen,' names itching skin, headache, weariness, slow pulse, vomiting, salivation, acute pharyngitis, albuminuria.

"But the illness of workers in cyanide-mills is more likely, I believe, to be arsenical poisoning. Both the ore and the zinc used in the extraction-process may contain arsenic as an impurity. The best article on the occurrence of arsenical poisoning among these men is by Noble Wiley Jones, in *The Journal of the American Medical Association*, 1907, vol. xlvii, page 1099."

As a first measure, it undoubtedly will be necessary for this patient to leave the cyanide-mills. If the idea should prove correct that he is really suffering from arsenical poisoning, the accepted treatment should be instituted. After recovery, he will have to engage in another occupation.

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QUERY 6216.—S. B., South Carolina, asks for the "best treatment" for exophthalmic goiter.

The very best treatment for exophthalmic goiter with which I am familiar is that advocated by the late Doctor Forchheimer, of Cincinnati, as described in his book entitled "Prophylaxis and Treatment." The principal remedy employed by him is quinine hydrobromide, 5 grains taken four times daily. "Under this treatment," quoting Forchheimer, "the tachycardia improves, the pulse frequently coming down, from 130 or 140, to 80 or 90, in forty-eight hours; second, the thyroid gland diminishes in size, by measurement; thirdly, the tremor and exophthalmos are the last symptoms to leave.

Forchheimer recommends, in association with the quinine salt, ergot in some form, for its steadying effect upon the circulation. These two remedies, taken together for a considerable period—one month, two months, or more—will control a very large percentage of these cases. You understand, of course, that it will not cure them all, and occasionally

it may fail altogether, although in this writer's experience benefit usually follows in the majority of instances.

In association with the quinine treatment, Dr. Israel Bram (*N. Y. Med. Jour.*, Nov. 27, 1915) also recommends lecithin, which stimulates the resisting power of the tissues. According to that writer, this latter remedy is especially indicated when the nervous symptoms are pronounced. He asserts that it will control the tremor and excitability even more effectually than do the bromides. The only contraindication will be when it upsets the digestive function, which it is but very rarely likely to do. The diet, of course, must be well selected and generous.

In this connection, read the account of the work of Watson printed on page 605, this issue. Doctor Watson is using injections of quinine and urea hydrochloride in these cases, and with quite remarkable results.

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QUERY 6217.—"Nephrolithiasis" M. W. Y., Indiana sends in a specimen of urine, a part of 3 1.2 pints passed in twenty four hours, from a man forty years old who passes gravel and blood every day. The man has been ill for five years, but discharged gravel only for a few months.

The urine is highly alkaline; there is much crystallization, and symptoms of intestinal fermentation exist. The patient probably suffers from nephrolithiasis.

In this case an x-ray examination should be made at the earliest possible time, in order to obtain more exact information on the situation of the gravel. Hexamethylenamine, 3 grains, with arbutin, 1-2 grain and ammonium benzoate 3 grains, should be given every three or four hours, and dilute nitromuriatic acid administered with meals. The intestinal fermentation should be controlled by tablets containing bilein, strychnine arsenate, pancreatin, sodium sulphocarbolate and sodium carbonate, one hour after eating.

Thorough intestinal lavage, and high enemata of decinormal salt solution should be administered every second or third night, before retiring. As soon as the fermentation is controlled, tablets of the Bulgaric bacillus are advised, three or four tablets, chewed and swallowed with a little milk, on an empty stomach, three times daily; or better still, one third of a tube of bacillus-bulgaricus bouillon, morning, noon and night.

The diet should consist of cereals, fruits (ripe or well cooked), and vegetables of an easily digestible character; eggs, skimmed milk, buttermilk; a small quantity of red meat may be allowed daily or every other day. Veal, pork, smoked meats, smoked fish, pastry, spiced foods, rich soups, made dishes, coffee and alcoholic beverages must be prohibited.

Cases of this kind require careful study, and the treatment must be varied from time to time to meet the changing conditions. Of course, the urine should be submitted for examination periodically, and it will be well to send specimens of the gravel that is passed.

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QUERY 6218.—"Marasmus?" H. C. H., Indiana, describes the case of a female child, twenty months old, whose facial expression is idiotic. It is wabbly in neck; legs the size of those of a six months infant. Bowels are regular and of good appearance; color and quantity normal. The child eats well, is not cross, sleeps well. "Looks like marasmus."

The clinical data submitted are, of course, quite insufficient to justify a definite diagnosis, or even tentative therapeutic suggestions. The case does not look like one of true marasmus, rather like one of arrested development, possibly like rickets. It would be necessary to know the family history, and to be informed whether there is any specific taint in the family. Was labor natural or instrumental? Has the mother borne healthy children? How is the child fed, and how long has this abnormal condition been observed?

It is possible that careful dieting, and the administration of Bulgarian bacillus tablets, crushed, will prove beneficial. The digestion should be facilitated by small doses of diastase and papain; and, in addition, nuclein, also lecithin, and, possibly, careful tentative treatment with thyroid substance may be of benefit. It must not be forgotten that, while the case is probably one of malnutrition, or of faulty nutrition, or at least while it is in part due to such a condition, there are many related points which should be investigated in order to clear it up.

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QUERY 6219.—"Vicarious Menstruation Versus Hemoptysis." W. F. S., Texas, writes about a woman whose menses fail to show up for several times in succession, while there is hemorrhage from the thoracic region.

From the very few points presented in this communication, it is not possible to say whether or not the doctor is dealing with a case of vicarious menstruation, but we are inclined to suspect a clear case of hemoptysis

due to pulmonary tuberculosis; the cessation of the menses being, itself, the result of the tuberculous disease. If we are correct, and the amenorrhea is actually due to tuberculosis, it would be worse than useless to attempt the treatment of the failing menstruation.

When the hemorrhage occurs "from the thoracic region," emetine hydrochloride may be administered for its direct hemostatic action, and it may even exert a beneficial effect upon the tuberculous process; at least we are led to infer this possibility from correspondence with several physicians. But we confess that we cannot quite see the modus operandi of such an action of emetine. In hemoptysis, however, its effect is clear and undoubted.

In the case in hand, the doctor will have to examine the patient's thoracic organs for evidences of disease. In the presence of pulmonary tuberculosis, supporting treatment is, of course, indicated primarily, and then such measures of symptomatic therapy are called for as may be indicated by the individual symptoms.

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QUERY 6220.—"Obscure Affection of the Kidney." H. L. W., Wisconsin, describes the case of a young man, thin, apparently in good health except for periods of pain over the right kidney, sometimes radiating across the right side of the abdomen. Occasionally this is severe enough to cause the patient to assume the recumbent position. The pain develops at irregular periods, frequently after starting work, and has existed, intermittently, for several years. Complete uranalyses and x-ray examinations were negative in results. The affection has been held to be of rheumatic origin, and alternating hot and cold baths have given temporary relief. There is a tenderness in the right side of the spine, about one inch above the pelvis; pressure on the twelfth rib causes some pain; this rib is separated from the eleventh more widely on the right than on the left side. Strapping the right side has, previously, been of assistance. The doctor suspects inflammation in the right kidney, possibly also renal calculus. He adds that laying the patient on the face and manipulating the region, causes the pain to cease; later on it recurs, when he moves about.

In this case, it is just possible that there is a subluxation; on the other hand, the pain may be due to the presence of a small calculus in the renal pelvis. In either case the x-ray examination should be repeated and may prove informing. Displacement of the affected kidney, which may or may not contain a concretion, must be thought of, particularly since the pain ceases on certain kinds of manipulation and recurs when the upright position is assumed. In view of the fact that this patient has had the advantage of the best obtainable advice in the country, we express ourselves as loth to offer more than suggestions. We should wish to know, however, the results of a complete uranalysis, repeated several times, the specimens being voided before, during and after the attacks of pain, also in painless intervals. Further, an exact examination of the abdominal organs, including the spleen and liver, may be of assistance, in spite of the fact that the pain is referred to the right side. The possibility of a tender appendix must be considered. Altogether, there are so many difficulties in the way of a "long-distance" diagnosis, that we do not dare to venture it.

On general principles the digestive process should receive attention, and free elimination be secured. Definite treatment for a case of this sort naturally is dependent upon a clear diagnosis, and we must, therefore, refrain from offering any therapeutic suggestions.

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QUERY 6221.—"Obstinate Vomiting of Children." J. W. S., North Carolina, writes about a little boy, three years old, an orphan, with good family history, who is afflicted with frequent vomiting. Water comes back ten or fifteen minutes after ingestion. There is no appetite and all food refuses to "stick." The doctor gives the white of one egg in scraped ice during the day, which is usually retained. Bowels and liver have been attended to. There does not seem to be much nausea; some fever, the temperature running from 99° to 100.5° F. The condition has existed for a year or more.

It seems hardly necessary to call attention to the fact that vomiting is one of the most frequent symptoms of disease in children and may be due to a great variety of causes. The case in point is evidently not one of cyclic vomiting. Possibly there may be an underlying disease of the nervous system. We assume that constipation coexists and that possibly the pulse is irregular. We also suspect that the temperature may be subnormal just prior to or during an attack.

In searching for the cause, it is to be remembered that autotoxemia may produce vomiting; that it may have its origin in renal disease (therefore the urine should be examined); that there is frequently acidemia;

and that there may be some irritation of the pharynx.

In some cases, vomiting arises originally from a definite cause, persists after its removal, as a habit, and the most trivial things may occasion the attack.

Holt has seen a number of children who, up to the third or fourth year, persistently vomited any solid food, no matter of what variety or how small the quantity given, although fluids could be retained.

Other possible causes for persistent vomiting may be chronic indigestion, abnormalities of the digestive tract, cerebromeningeal congestion.

This little boy should be subjected to a very careful and complete physical examination, including an investigation of all reflexes. Together with the specimen of urine that should be examined, the material vomited after feeding (preferably a mixed cereal and milk, or egg meal) should be submitted, accompanied by information as to the time of expulsion, i. e., the period which elapses between the ingestion of food and its ejection. Then it should be known what is the character of vomiting, whether it is easy or convulsive, paroxysmal, and the like. It would also be of interest to know what caused the death of this boy's parents.

In the meantime, feeding may be tried with clam bouillon, white of egg, and mucilaginous beverages, and, if necessary, by the rectal route. We should be inclined to begin at once a course of alkaline medication, providing the urine is shown to be hyperacid.

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QUERY 6222.—"Hematuria." F. R., Colorado, writes about a man, sixty-five years old, with the history of three attacks of hematuria in the last two years. The last attack was induced by a strain, the patient standing on a snow bank, trying to jump on a horse, when the snow gave way and let him down. The following day he did some heavy lifting, then he began to pass blood in the urine and has continued to do so ever since, complaining of some pain across lower part of the back and in the bladder. In this case, hypodermic injections of emetine failed to give results, also calcium chloride in full doses, and hamamelis. Our correspondent sends in a specimen of urine and requests suggestions for treatment.

The urine shows evidence of a lesion somewhere in the upper urinary tract and probably some cystitis. Naturally, the exact source of the hemorrhage should be ascertained, if at all possible.

For treatment, it will be well to administer small doses of ergotoid with arbutin and hamameloid, and plenty of barley water, made thin.

In view of the presence of many coli bacteria, a few injections of an autogenous bacterin might materially improve conditions.

It will be well to examine the prostate of this patient and, if the condition does not improve, to make a cystoscopic examination.

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QUERY 6223.—"Morphine Addiction." G. W. S., Mississippi, writes about a patient, a widow, 70 years old, who has been a morphine habitué since the death of her husband about thirty years ago. She has declined any suggestion of treatment and is regarded as incurable. When the Harrison law passed, she managed to secure a big supply of morphine. The supply is running low, and she and her family are anxious that she have another stock-up. As the doctor interprets the revenue collector's reply to inquiry on the subject, he can prescribe what he believes necessary (stating the case to be incurable at her age), and the druggist can order it on his prescription. One of the woman's sons says he thinks she would try home treatment at the doctor's hands but nothing could induce her for a moment to think of leaving home.

The question regarding the treatment of seventy-year-old patients is not easy to answer. One of the Department rulings is that the physician shall not supply addicts with their drug unless the prescription shows a gradual decrease of quantity, although an increase may be shown in the case of an incurable disease.

It is a question, of course, whether the patient may be regarded as suffering from an incurable disease or whether the officials in that district construe the law in a commonsense way, realizing that it is practically impossible to withdraw opiates from a woman of advanced age.

The writer's experience would lead him to believe that by the time the amount of morphine was reduced to 3 or 2 grains *pro die*, conditions would be so unsatisfactory that one would hesitate to make any further reduction; in fact, by such a reduction, the patient's life might be seriously endangered. However, under no circumstances should the patient be supplied with any quantity of morphine. The safest way would be to prescribe sufficient for say two or three days, then prescribe again. To "stock her up," would be objectionable for many reasons.